Solution 10.1

KERSHAW LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 20X4

1. Accounting policies

1.1 Statement of compliance

These financial statements have been prepared in accordance with the approved accounting standards as applicable in Pakistan. Approved accounting standards comprise of such International Financial Reporting Standards (IFRS) issued by the International Accounting Standard Board as are notified under the Companies Ordinance, 1984, provisions of and directives issued under the Companies Ordinance, 1984. In case the requirements differ, the provisions or the directives of the Companies Ordinance, 1984 shall prevail.

1.2 Basis of preparation

The financial statements are prepared in accordance with the historical cost convention. The financial statements incorporate the following principle accounting policies, which are consistent in all material respects with those applied in the previous year.

1.2 Property, plant and equipment

No depreciation is provided on land. Fixtures and fittings are depreciated at 10% per annum using the reducing balance method. Buildings are depreciated at 2% per annum on the straight line method.

2. Property, plant and equipment

	Land	Buildings	Fixtures and fittings	Total
	C	C	C	C
Cost				
Balance 1/7/20X3	80 000	-	60 000	140 000
Constructed	-	50 000		50 000
Balance 30/6/20X4	80 000	50 000	60 000	190 000
Accumulated depreciation				
Balance 1/7/20X3	-	-	10 000	10 000
Current depreciation	-	-	5 000	5 000
Balance 30/6/20X4	-	-	15 000	15 000
Carrying amount				
1/7/20X3	80 000	-	50 000	130 000
30/6/20X4	80 000	50 000	45 000	175 000

Cost of land 1 January 20X2	80 000
Buildings erected thereon 30 June 20X4	50 000
	130 000

Calculation of current depreciation: (60 000 – 10 000) x 10%

Solution 10.2

TREASURE LIMITED
EXTRACT FROM STATEMENT OF FINANCIAL POSITION
AT 31 MARCH 20X3

	Note	C
ASSETS		
Non-current assets		
Property, plant and equipment		125 000
EQUITY AND LIABILITIES		
Non-current liabilities		
Debentures		96 000
Current liabilities		
Accounts payable		5 000

EXTRACT FROM THE NOTES TO THE FINANCIAL STATEMENTS

4. Non-current liability

	C
Unsecured	
Debentures	100 000
Debenture discount not yet written off	4 000
	96 000

100 000 C1 unsecured debentures bearing interest at 15%, redeemable at par on 1 April 20X8

5. Property, plant and equipment

	Land C	Buildings C	Total C
Cost			
Balance 1/4/20X2	-	-	-
Acquisitions	120 000	5 000	125 000
Balance 31/3/20X3	120 000	5 000	125 000
Accumulated depreciation			
Balance 1/4/20X2	-	-	-
Current depreciation	-	-	-
Balance 31/3/20X3	-	-	-
Carrying amount			
1/4/20X2	-	-	-
31/3/20X3	120 000	5 000	125 000

Solution 10.2 continued …

6. Capital commitments

Contracted	[(20 000 X ¾) + 10 000]	25 000
Authorised but not yet contracted		120 000
Total authorised		145 000

The expenditure is to be financed partly by C1 15% debentures of C100 000 issued at 4% discount and partly out of cash generated by operations.

Workings

Amount contracted

Contracted: Clearing (20 000 x ¾)	15 000
Architect	10 000
	25 000

Building

Work done: 20 000 x ¼ = 5 000

Solution 10.3

Plant: journals

	Debit	Credit
Depreciation – Plant	150 000	
Accumulated depreciation - Plant		150 000

Workings

			Original estimate	New estimate
01/10/X1	Cost	(800 + 45 – 5)	840 000	
30/09/X3	Accumulated depreciation	[(840 – 40) / 5 X 2]	(320 000)	
			520 000	520 000
30/09/X4	Depreciation	[Same] [(520 – 70) / 3]	(160 000)	(150 000)
			360 000	370 000
Future years		(160 X 2) (150 X 2)	(320 000)	(300 000)
			40 000	70 000

Motor vehicle: journals

	Debit	Credit
Motor vehicle	270 000	
Bank		270 000
Depreciation – MV	45 000	
Accumulated depreciation - MV		45 000
Accumulated depreciation - MV	2 000	
Loss on de-recognition	10 000	
Motor vehicle		12 000
Motor vehicle – Tyres	24 000	
Bank		24 000
Depreciation – MV	21 500	
Accumulated depreciation - MV		21 500
Depreciation – Tyres	4 000	
Accumulated depreciation - Tyres		4 000
Repairs and maintenance	12 500	
Bank		12 500

Solution 10.3 continued . . .

Workings

01/10/X3	Cost		270 000
30/05/X4	Depreciation	(270 000 / 4 X 8/12)	(45 000)
			225 000
	De-recognition of old tyres	[12 000 – (12 000 / 4 X 8/12)]	(10 000)
	Recognition of new tyres		24 000
			239 000
30/09/X4	Depreciation		(25 500)
	MV	(215 000 / 40 X 4)	21 500
	Tyres	(24 000 / 24 X 4)	4 000
			213 500
	MV	(215 000 – 21 500)	193 500
	Tyres	(24 000 – 4 000)	20 000

Helicopter: journals

	Debit	Credit
Accumulated depreciation – Helicopter inspection	200 000	
Helicopter inspection		200 000
Helicopter inspection	240 000	
Bank		240 000
Depreciation – Helicopter airframe & interior	90 000	
Accumulated depreciation - Helicopter airframe & interior		90 000
Depreciation – Helicopter engine & blades	74 000	
Accumulated depreciation - Helicopter engine & blades		74 000
Depreciation - Helicopter inspection	80 000	
Accumulated depreciation - Helicopter inspection		80 000

Workings

		Airframe & interior	Engine & blades	Inspection
01/10/X0	Cost	900 000	400 000	200 000
01/10/X0 – 30/09/X3	Accumulated depreciation	(270 000)	(222 000)	(200 000)
30/09/X3	CA	630 000	178 000	-
01/10/X3	Inspection			240 000
30/09/X4	Depreciation	(90 000)	(74 000)	(80 000)
		540 000	104 000	160 000

Photocopy machine: journals

	Debit	Credit
Depreciation expense	53 333	
Accumulated depreciation: photocopy machine		53 333

(280 000 – 40 000) / 3 years X 8/12

Solution 10.4

a) Journals

	Debit	Credit
2 January 20X2		
Cost: plant – engine	1 500 000	
Cost: plant – conveyor belt and fittings	2 000 000	
Cost: plant – outer structure	800 000	
Bank/ liability		4 300 000
Purchase of bottling plant		
5 January 20X2		
Cost: plant – engine	250 000	
Cost: plant – conveyor belt and fittings	250 000	
Cost: plant – outer structure	250 000	
Bank/ liability		750 000
Delivery and installation: 1/3 allocated to each component		
16 January 20X2		
Staff training (expense)	60 000	
Bank/ liability		60 000
Staff training expensed (not a 'directly attributable cost' in bringing the plant to a location and condition that enabled it to be used as intended by management)		
19 January 20X2		
Cost: plant – engine	11 000	
Cost: plant – conveyor belt and fittings	11 000	
Cost: plant – outer structure	11 000	
Bank/ liability		33 000
Testing that plant fully operational: 1/3 allocated to each component		
21 January 20X2		
Entertainment/ advertising (expense)	210 000	
Bank/ liability		210 000
'Bottling plant launch party' expensed		
31 December 20X2		
Depreciation	799 173	
Accumulated depreciation: plant – engine		231 183
Accumulated depreciation: plant – conveyor belt and fittings		259 073
Accumulated depreciation: plant – outer structure		308 917
Depreciating each component of plant separately:		
Engine = (1 500 000 + 250 000 + 11 000 – 500 000) / 5 years x 11/12		
Conveyor belt etc = (2 000 000 + 250 000 + 11 000 – 0) / 8 years x 11/12		
Outer structure = (800 000 + 250 000 + 11 000 – 50 000) / 3 years x 11/12		
Depreciation starts from the date that the asset was available for use: 1 February 20X2		
31 December 20X3		
Depreciation	871 825	
Accumulated depreciation: plant – engine		252 200
Accumulated depreciation: plant – conveyor belt and fittings		282 625
Accumulated depreciation: plant – outer structure		337 000
Depreciating each component of plant separately:		
Engine = (1 500 000 + 250 000 + 11 000 – 500 000) / 5 years		
Conveyor belt etc = (2 000 000 + 250 000 + 11 000 – 0) / 8 years		
Outer structure = (800 000 + 250 000 + 11 000 – 50 000) / 3 years		

Solution 10.4 continued …

b) Disclosure

ANCIENT WATERS LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X3

Date		Total	Land	Bottling plant
01/01/20X2	Net carrying amount	4 000 000	4 000 000	-
	Gross carrying amount	4 000 000	4 000 000	-
	Accumulated depreciation and impairment losses	-	-	-
	Additions	5 083 000	-	5 083 000
	Depreciation	(799 173)	-	(799 173)
31/12/20X2	Net carrying amount	8 283 827	4 000 000	4 283 827
	Gross carrying amount	9 083 000	4 000 000	5 083 000
	Accumulated depreciation and impairment losses	(799 173)	-	(799 173)
	Depreciation	(871 825)	-	(871 825)
31/12/20X3	Net carrying amount	7 412 002	4 000 000	3 412 002
	Gross carrying amount	9 083 000	4 000 000	5 083 000
	Accumulated depreciation and impairment losses	(1 670 998)	-	(1 670 998)

Land is shown at cost:
- Purchased on 5 December 20X0
- Purchase price: C4 000 000
- There have been no additions to this property since purchase date.

Comments:
- There is no journal entry allocating the operating loss incurred during March 20X2 (the excess expenses incurred over income earned) to the plant since this cost was incurred after the plant had been brought to a location and put into a condition that enabled it to be used as intended by management.
- Depreciation is calculated on each individual component separately.
- Depreciation begins when the asset is available for use as intended by management.
- Depreciation does not cease when the asset is temporarily idle.

Solution 10.5

JOURNALS OF UNWIND LTD	Debit	Credit
a) EQUIPMENT		
Repairs	30 000	
Bank		30 000
Payment for repair		
Equipment: accumulated depr & imp losses	9 000	
Impairment loss reversed		9 000
Impairment of equipment after fire, reversed after repair: 114 000 – 105 000		
Depreciation	19 000	
Equipment: accumulated depreciation		19 000
Depreciation on equipment: 114 000/6		
b) LIGHT AIRCRAFT		
Depreciation	10 000	
Aircraft bodywork: accumulated depreciation		10 000
Depreciation on aircraft bodywork: 80 000 / 8		
Depreciation	24 000	
Aircraft engines and propellers: accumulated depreciation		24 000
*Depreciation on aircraft engines etc: (200000-80000)/15000*3000*		
Depreciation	25 000	
Aircraft inspection: accumulated depreciation		25 000
Depreciation on aircraft inspection: 100 000 / 4		
Aircraft inspection: accumulated depreciation	100 000	
Aircraft inspection: cost		100 000
Derecognition of aircraft inspection		
Aircraft inspection: cost	150 000	
VAT input	21 000	
Bank		171 000
Payment for major inspection of aircraft		
c) VEHICLE		
Depreciation: vehicle	20 000	
Vehicles: accumulated depreciation		20 000
Depreciation of vehicles (residual value R17 500)		
{[100000-(100000-10000)/4]-17500}/3 or W1		
d) COMPUTER		
Depreciation: computer	7 500	
Computer: accumulated depreciation		7 500
Depreciation of new computer from time available for use		
(50000-0)/5years x 9/12		

W1: Change in estimate		**Was**	**Is**	**Difference**
Cost	*1/1/20X3*	100 000		
Accumulated depreciation	*(100 000 - 10 000) / 4 x 1 year*	(22 500)		
Carrying amount	*31/12/20X3*	77 500	77 500	
Residual value		*(10 000)*	*(17 500)*	
Depreciable amount		*67 500*	*60 000*	
Remaining useful life		*3*	*3*	
Depreciation	20X3	(22 500)	(20 000)	2 500
Carrying amount	*31/12/20X3 (77 500 – 22 500); (77 500 – 20 000)*	55 000	57 500	

Solution 10.6

	Debit	Credit
Year ended 31 December 20X4		
2 January 20X4		
Ship: cost: hull	10 000 000	
Ship: cost: engine room	9 000 000	
Ship: cost: major inspection	1 000 000	
Bank/ Liability		20 000 000
Purchase of ship		
30 June 20X4		
Depreciation: ship major inspection	1 000 000	
Ship: accumulated depreciation: major inspection		1 000 000
Depreciation: ship components: previous major inspection depreciated to date of expiration		
Ship: accumulated depreciation: major inspection	1 000 000	
Ship: cost: major inspection		1 000 000
Derecognition of previous major inspection costs		
Ship: cost: major inspection	6 000 000	
Bank		6 000 000
Payment for major inspection performed 30 June 20X4		
31 December 20X4		
Depreciation: medical waste disposal plant	2 800 000	
Medical waste disposal plant: accumulated depreciation		2 800 000
Depreciation: medical waste disposal plant - given		
Depreciation: ship	3 100 000	
Ship: accumulated depreciation: hull		1 000 000
Ship: accumulated depreciation: engine room		900 000
Ship: accumulated depreciation: major inspection		1 200 000
Depreciation: ship hull (10 000 000 - 2 000 000) / 8 years		
Depreciation: ship engine room (9 000 000 / 1 000 000 miles x 100 000 miles)		
Depreciation:ship second major inspection (6 000 000 / 2.5 years x 6/12)		
Depreciation: ship components		

Solution 10.6 ADAPTATION

ADAPTATION:
Please note that this is the solution to 10.6 if the question is adapted in the following way:
- The medical waste disposal plant must be dismantled at the end of its useful life
- The expected dismantling costs were C2 000 000 (future costs) on date of acquisition. An appropriate discount rate is 10%.
- This plant was bought on 1 July 20X3, has a total useful life of 5 years and a nil residual value.

Journals:

		Debit	Credit
Year ended 31 December 20X3			
1 January 20X3			
Plant: cost: physical structure	*W1*	12 758 158	
Bank/ Liability			12 758 158
Purchase of medical waste disposal plant			
Plant: cost: dismantling provision	*W1*	1 241 842	
Provision for dismantling			1 241 842
Purchase of medical waste disposal plant :			
• *Capitalise future dismantling provision*			
31 December 20X3			
Depreciation: plant		1 400 000	
Plant: accumulated depreciation: physical structure			1 275 816
Plant: accumulated depreciation: dismantling provision			124 184
Depreciation: medical waste disposal plant – total given			
• *Physical structure: (12 758 158 – 0) / 5 years x 6 /12*			
• *Dismantling costs: (1 241 842 / 5 years) x 6/12*			
Finance costs	*W3: 124 184 x 6/12*	62 092	
Provision for dismantling			62 092
Unwinding of the discount on the present valued future dismantling			
Year ended 31 December 20X4			
2 January 20X4			
Ship: cost: hull		10 000 000	
Ship: cost: engine room		9 000 000	
Ship: cost: major inspection		1 000 000	
Bank/ Liability			20 000 000
Purchase of ship			
30 June 20X4			
Depreciation: ship major inspection		1 000 000	
Ship: accumulated depreciation: major inspection			1 000 000
Depreciation: ship components: previous major inspection depreciated to date of expiration			
Ship: accumulated depreciation: major inspection		1 000 000	
Ship: cost: major inspection			1 000 000
Derecognition of previous major inspection costs			
Ship: cost: major inspection		6 000 000	
Bank			6 000 000
Payment for major inspection performed 30 June 20X4			

Solution 10.6 ADAPTATION continued …

Journals continued ...	Debit	Credit
31 December 20X4		
Depreciation: plant	2 800 000	
Plant: accumulated depreciation: physical structure		2 551 632
Plant: accumulated depreciation: dismantling provision		248 368
Depreciation: medical waste disposal plant – total given		
• *Physical structure: (12 758 158 – 0) / 5 years*		
• *Dismantling costs: (1 241 842 / 5 years)*		
Depreciation: ship	3 100 000	
Ship: accumulated depreciation: hull		1 000 000
Ship: accumulated depreciation: engine room		900 000
Ship: accumulated depreciation: major inspection		1 200 000
Depreciation: ship hull (10 000 000 - 2 000 000) / 8 years		
Depreciation: ship engine room (9 000 000 / 1 000 000 miles x 100 000 miles)		
Depreciation:ship second major inspection (6 000 000 / 2.5 years x 6/12)		
Depreciation: ship components		
Finance costs *W3: 124 184 x 6/12 + 136 603 x 6/12*	130 394	
Provision for dismantling		130 394
Unwinding of the discount on the present valued future dismantling		

Workings:

W1. Initial cost of acquisition: plant

Total initial cost:	*2 800 000 depreciation x 5 years + nil RV*	14 000 000
• Dismantling provision: PV 1/1/20X3	*W2*	1 241 842
• Paid for in cash	*Balancing: 14 000 000 – 1 241 842*	12 758 158

W2. Present value of future dismantling costs as at 1 January 20X3

Future cost:	*Given*	2 000 000
PV factor	*$1/1.1^5$ OR 1/1.1 / 1.1 / 1.1 / 1.1 / 1.1*	0.620921
Present value on 1 January 20X3	*2 000 000 x 0.620921*	1 241 842

W3. Effective interest rate table

Calendar years:	Provision: opening balance		Finance costs	Provision: closing balance
20X3	W2	1 241 843	124 184	1 366 027
20X4		1 366 027	136 603	1 502 630
20X5		1 502 630	150 263	1 652 893
20X6		1 652 893	165 289	1 818 182
20X7		1 818 182	181 818	2 000 000
			758 157	

Solution 10.7

a) Journals

	Debit	Credit
Year ended 31 December 20X2:		
1 February 20X2		
Raw materials (asset)	500 000	
Bank/ liability		500 000
Purchase of raw materials		
30 June 20X2		
Cost: tarring vehicle (asset)	100 000	
Raw materials (asset)		100 000
Raw materials used on the construction of the tarring vehicle		
30 September 20X2		
Cost: tarring vehicle (asset)	20 000	
Bank/ liability		20 000
Safety test performed before vehicle could be brought into use		
31 December 20X2		
Depreciation – machinery (expense)	200 000	
Accumulated depreciation: machinery		200 000
Depreciation of machinery		
31 December 20X2		
Cost: tarring vehicle (asset)	50 000	
Depreciation - machinery (expense)		50 000
Allocation of 25% of the depreciation on machinery to the construction of the tarring vehicle: 200 000 x 25%		
The labour costs paid over the course of 20X2 would have totalled:		
Labour costs (expense)	300 000	
Bank		300 000
Labour costs incurred during the year (these journals would obviously have been journalised as incurred rather than as one single journal entry)		
31 December 20X2		
Cost: tarring vehicle (asset)	57 000	
Labour costs (expense)		57 000
Allocation of 20% of labour costs (excluding 5% unnecessary wastage due to strike) to construction of tarring vehicle: 300 000 x 20% x 95%		
31 December 20X2		
Depreciation – tarring vehicle	11 000	
Accumulated depreciation: tarring vehicle		11 000
Tarring vehicle depreciated since first available for use: (100 000 + 20 000 + 50 000 + 57 000 – 7 000) / 5 years x 3/12		

Solution 10.7 continued …

b) Disclosure

ROADS INTERNATIONAL LTD
NOTES TO THE FINANCIAL STATEMENTS - 31 DECEMBER 20X2

4 Property, plant and equipment

	20X2 C
Total net carrying amount:	
Other assets listed per classification	xxx
Tarring vehicle	216 000
	xxx
Tarring vehicle – self constructed asset	
Net carrying amount: 1 January	0
Gross carrying amount:	0
Accumulated depreciation and impairment losses:	0
Additions (100 000 + 20 000 + 50 000 + 57 000)	227 000
Depreciation (227 000 – 7 000) / 5 years x 3/12	(11 000)
Net carrying amount: 31 December	216 000
Gross carrying amount:	227 000
Accumulated depreciation and impairment losses	(11 000)

5 Profit before taxation

Profit before taxation is stated after taking into account the following separately disclosable items:

	20X2 C
Depreciation - machinery	150 000
Total depreciation on machinery	200 000
Less capitalised to tarring vehicle	(50 000)
Depreciation – tarring vehicle	11 000

Solution 10.8

Issue a) Internal manufacture of Machine B

All costs necessarily incurred in bringing the asset 'to a location and condition for it to be capable of operating in a manner intended by management' should be capitalised.

This means that the following costs may not be capitalised (all other costs were correctly capitalised):

- The C20 000 materials destroyed – all unnecessary wastage is expressly not allowed to be capitalised per IAS 16

- Administration overheads of C70 000 – unless it can be proved that these costs were directly linked to the manufacture of the machine.

The capitalisation of the other costs is correct on the grounds that:

- Raw materials, labour and the depreciation of other machinery used in the manufacture of machine B would be classified as costs necessarily incurred in bringing the asset to a location and condition enabling it to be used.

Property, plant and equipment must be depreciated from the date on which it first becomes available for use and thus this machine should be depreciated from 1 May 20X0. This has obviously not been done since the carrying amount at year-end equals the cost of manufacture.

Issue b) Acquisition of a crane

A newly acquired asset should be brought into the accounting records at the fair value of the asset given away adjusted for cash and cash equivalents, where appropriate. Where this fair value is not available, or the fair value of the acquired asset is considered to be more clearly evident, the fair value of the newly acquired asset should be used instead (in this case, C400 000). The only time that the carrying amount of the asset given away may be used is if neither of the fair values was available or there was no economic substance to the transaction (i.e. the assets are very similar).

If the difference between the carrying amount (C500 000) and the available fair value (C400 000) is considered to be material, this will mean than either:

- the carrying amount of the crane that was given away should first be reduced to C400 000, being its true fair value (i.e. there is an impairment loss), or

- the carrying amount of the crane that was given away was a true reflection of its fair value (C500 000) and therefore a genuine loss on exchange of C100 000 (C500 000 – C400 000) was incurred. The new crane should then be recognised at C400 000, this fair value being considered to be more clearly evident.

Although costs necessarily incurred in bringing the asset to a location/ condition that enables it to be used must be capitalised, costs that are avoided may not be capitalised since they have not been incurred. The relocation costs that were avoided should, therefore, not be considered in the debate regarding the measurement of newly acquired crane.

Solution 10.8 continued . . .

If it is decided that the C500 000 carrying amount of the crane that was given away should be reduced to C400 000 (being a better reflection of its fair value) this reduction may be effected either as a change in depreciation (if it is believed that the useful life was shorter than originally estimated) or as an impairment loss (if it is found that there was an unexpected drop in the asset's recoverable amount). The respective journal entries would be as follows:

	Debit	Credit
a change in estimated depreciation:		
Depreciation	100 000	
Accumulated depreciation		100 000
or		
an impairment loss:		
Impairment loss	100 000	
Accumulated depreciation & impairment loss		100 000

Issue c): Repainting of the administration building.

The cost of painting would either be considered to be:

- subsequent expenditure: a replacement or renewal of a component; or
- Subsequent expenditure: other.

Paint would only be considered to be a separate component of the building if it is material and has a different useful life or a different pattern of economic benefits. If it were a separate component, then it would also need to meet the recognition criteria. It is submitted that since there is no definite cause and effect between the cost of the paint and the potential for future economic benefits to flow, the recognition criteria would not be met.

If it were to be argued that the paint was 'subsequent expenditure: other', the cost of the paint would only be capitalised if 'the standard of performance assessed immediately before the expenditure was made' is improved. It is submitted that the extra paint maintains the expected level of future economic benefits (thus avoiding an impairment rather than improving the asset) and should therefore be classified as 'maintenance costs' and be expensed.

Solution 10.9

a)

Residual value is defined as the estimated amount that the entity would *currently* obtain (at the financial reporting date) if the asset were already of the age and in the condition expected at the end of its useful life.

The C100 000 is the amount the entity expects to receive when the plant is five years old in two years time. However, the residual value is the estimated amount the entity would receive today if the asset were already five years old. Therefore, C70 000, which is the amount that a similar five year old asset realised recently is used as the residual value.

b)

The cost of an item of property, plant and equipment is recognised as an asset if:
- it is probable that future economic benefits associated with the item will flow to the entity
- the cost of the item can be measured reliably

An entity evaluates under this recognition principle all its property, plant and equipment costs at the time they are incurred, including costs incurred *initially* to acquire the item or costs incurred *subsequently* to add to, replace part of or service it.

The fact that the new ventilation system is only maintaining the existing level of ventilation in the factory is irrelevant. Probable future benefits will flow to the entity and the cost (C240 000) can be measured reliably.

The carrying amount of the component that is replaced by the new component should be derecognised.

c)

Depreciation of an asset begins when it is available for use, that is, when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Depreciation must therefore commence from 1 August, when it was available for use. This is to reflect the consumption of the asset's service *potential* that occurs while the asset is held.

d)

Depreciation is recognised even if the fair value of the asset exceeds its carrying amount.

The future economic benefits are consumed irrespective if the fair value increases. Therefore, it is appropriate to depreciate the property in the current year. The purpose of depreciation is not the recognition of decreases in the value of property, plant and equipment; rather the purpose is to allocate the cost or revalued amount over its useful life.

Solution 10.9 continued …

e)

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is required to be depreciated separately. It is therefore necessary to allocate the amount initially recognised in respect of an item of property, plant and equipment to its significant parts, including the inspection.

The cost of the existing inspection component needs to be recognised even though it was not identified on initial acquisition. The current market price of an inspection for a three year old aircraft, estimated at C750 000 is used as an indication of what the cost of the existing inspection component was when the item was acquired

Additional comments (not required as part of answer)

When a major inspection or overhaul cost is embedded in the cost of an item of property, plant and equipment, it is necessary to estimate the carrying amount of the component because the cost of the physical item itself should not include any amount attributable to the inspection or overhaul. The carrying amount of the component should be determined by reference to the current market price of such overhauls and not the expected future price

For example, entity P runs a merchant shipping business and has just acquired a new ship for C400. The useful life of the ship is 15 years, but it will be dry-docked every three years and a major overhaul carried out. At the date of acquisition the dry-docking costs for similar ships that are three years old is approximately C80. Therefore, the cost of the dry-docking component for accounting purposes is 80 and this amount would be depreciated over the three years to the next dry-docking. The remaining carrying amount, which may need to be split further into components, is C320. Any additional components would be depreciated over their own estimated useful lives.

Component accounting for inspection or overhaul costs is intended to be used only for major expenditure that occurs at regular intervals over the life of an asset. Costs associated with routine repairs and maintenance should be expensed as incurred.

The remaining portion of the component that is replaced by a new component should be derecognised. For example, P carries out the dry-docking of its ship after two years instead of three. The carrying amount of the overhaul at that date is C27 [80 – (80 / 3)]. The actual dry-docking costs are C100

The remaining carrying amount of the component that has been replaced should be written off immediately because the component effectively has been disposed of. However, it is submitted that the amount written off should be included in depreciation instead of being classified as a loss on disposal because the requirement is to depreciate each asset separately. The extra depreciation of C27 is in effect a revision of the estimated useful life of the dry-docking.
The actual dry-docking costs of C100 will be capitalised to the cost of the ship and depreciated over the expected period until the next dry-docking.

Solution 10.10

Issue A: Impairment tests

a)
It is incorrect not to test for impairment on the basis that all property, plant and equipment has been valued using the revaluation model. An impairment test involves an indicator review, which should be performed annually. The annual indicator review involves looking at both internal and external information and assessing whether there is any indication that the recoverable amount may be less than the carrying amount.

Only if there is an indication that the recoverable amount may be less than the carrying amount would a formal assessment (calculation) of the recoverable amount have to be made.

b)
If the recoverable amount is less than the carrying amount, the variables of depreciation first need to be reassessed (remaining useful life; residual value and depreciation method). If the difference between the recoverable amount and carrying amount are as a result of an outdated assessment of the variables of depreciation, the difference should be treated as a change in accounting estimate (IAS 8). If, however, the difference is not as a result of insufficient depreciation, then an impairment loss will have to be processed.

Issue B: Recoverable amount, Residual value and Net realisable value

The recoverable amount is used when performing the impairment test. It is only calculated if the indicator review suggests that the recoverable amount is less than the carrying amount. It is the greater of the:
- Fair value less costs to sell; and the
- Value in use.

If the recoverable amount is less than the carrying amount, an impairment loss is recognised by reducing the carrying amount of the asset to the recoverable amount.

The residual value is used when calculating depreciation. Depreciation is based on the depreciable amount, which is calculated as the cost less the residual value.

The residual value of the asset is the amount the entity would currently obtain from disposal of the asset, if the asset were already of the age and condition expected at the end of its useful life.

The residual value is measured at the date of acquisition of the asset and is reassessed at the end of each financial year.

The net realisable value is calculated when valuing inventories. It is calculated as the expected selling price less expected costs to complete less expected disposal costs.

If the net realisable value is less than the cost of inventory, the value of the inventory should be written down to its net realisable value on the basis that inventory should be disclosed at the lower of cost or net realisable value. The amount of the write-down is therefore the difference between the cost of the inventory and its net realisable value. This difference is recognised as an expense and disclosed in the statement of comprehensive income.

Solution 10.11

a) Initial cost

	C
Purchase price (excluding VAT)	520 000
Delivery costs	18 000
Installation costs	12 000
	550 000

b) Objective of impairment test

The objective of IAS 36 is to ensure that an entity's assets are not overstated. If the *carrying amount* of an asset exceeds its *recoverable amount*, the carrying amount will not represent the future economic benefits to be derived from the asset and the asset is described as impaired. The recoverable amount is calculated as the higher of the assets' fair value less costs to sell and its value in use.

c) Test for impairment at 31 December 20X7

		C
Cost		550 000
Accumulated depreciation	[(550 000 – 50 000) X 0.10 X 5 yrs]	(250 000)
Carrying amount		300 000
Recoverable amount		280 000
Fair value less costs to sell	(270 000 – 15 000)	255 000
Value in use	(249 000 + 31 000)	280 000
Impairment		20 000

d) Disclosure at 31 December 20X7

WIEN LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X7

1. Accounting policies

1.1 Basis of preparation

The financial statements are prepared in accordance with the historical cost convention. The financial statements incorporate the following principle accounting policies which conform to International Financial Reporting Standards. These policies are consistent in all material respects with those applied in the previous year.

1.2 Property, plant and equipment

Equipment is stated at cost less accumulated depreciation and impairment losses.
Depreciation is provided at 10% per annum on the straight line basis.

Solution 10.11 continued . . .

2. Property, plant and equipment

		C
Net carrying amount at 31/12/X6		350 000
Gross carrying amount		550 000
Accumulated depreciation & impairment losses	(550 000 – 50 000) x 0.10 x 4 years	(200 000)
Depreciation for the year		(50 000)
Impairment loss		(20 000)
Net carrying amount at 31/12/X7		280 000
Gross carrying amount		550 000
Accumulated depreciation & impairment losses	(200 000 + 50 000 + 20 000)	(270 000)

3. Profit before tax

Profit before tax includes the following

• Depreciation	50 000
• Impairment loss	20 000

Solution 10.11 continued . . .

e) Reversal of impairment

Actual carrying amount	(280 000 – *92 000) *(230 000^ / 5 yrs remaining x 2 yrs) ^ (280 000 – 50 000)	188 000
Recoverable amount		198 000
Fair value less costs to sell		170 000
Value in use		198 000
Historical carrying amount	(550 000 – *350 000) *(500 000^ / 10 yrs x 7 yrs) ^ (550 000 – 50 000)	200 000
Reversal of impairment loss	(RA: 198 000 – ACA: 188 000) (notice that the reversal is not limited by the historical carrying amount since the recoverable amount is less than the historical carrying amount)	10 000

- C10 000 of the revaluation increase will be recognised as income as it reverses the impairment previously recognised as an expense. Separately disclose the reversal, together with the circumstances that led to reversal.

- The reassessment will have an impact on deferred taxation as the tax base of the equipment would not reflect the adjustments effected for accounting purposes.

Workings

		ACA	HCA
01/01/X3	Cost	550 000	550 000
31/12/X6	Accumulated depreciation	(200 000)	(200 000)
		350 000	350 000
31/12/X7	Depreciation	(50 000)	(50 000)
	Impairment	(20 000)	
		280 000	300 000
31/12/X8	Depreciation	(46 000)	(50 000)
		234 000	250 000
31/12/X9	Depreciation	(46 000)	(50 000)
		188 000	200 000

Solution 10.12

a) Initial measurement:

Purchase price	30 000
Transport	7 000
Protective varnish	13 000
	50 000

b) Recoverable amount and impairment loss

Depreciable amount		
Cost	(above)	50 000
Residual value	(5 000 – 3 000)	(2 000)
		48 000
Carrying amount		
Cost		50 000
Accumulated depreciation	(48 000/ 3 X 6/12)	(8 000)
		42 000
Fair value less costs to sell		
Selling price	(7 000 X 2 boats)	14 000
Selling costs	(4 000 x 2 boats)	(8 000)
		6 000
Value in use		
NPV of usage	(Given)	30 000
NPV of residual amount	(Given)	2 000
		32 000
Recoverable amount		
Higher of fair value less costs to sell: 6 000 and value in use: 32 000		32 000
Impairment loss		
Carrying amount		42 000
Recoverable amount		(32 000)
		10 000

Solution 10.12 continued . . .

c) Journals – 20X0

		Debit	Credit
01 Jan X0	Boats: cost	30 000	
	Bank/ Accounts payable		30 000
	Purchase of boats		
	Boats: cost	7 000	
	Bank/ Accounts payable		7 000
	Unavoidable costs of transport		
	Boats: cost	13 000	
	Bank/ Accounts payable		13 000
	Unavoidable costs of varnish		
	Advertising	10 000	
	Bank/ Accounts payable		10 000
	Painting of boats in company colours		
30 June X0	Depreciation	8 000	
	Boats: accumulated depreciation		8 000
	Depreciation of boats		
	Impairment loss	10 000	
	Boats: accumulated depreciation & impairment loss		10 000
	Impairment of boats following the accident		

Journals – 20X1

03 July X0	Bank	25 000	
	Insurance proceeds		25 000
	Receipt of insurance proceeds		
	Boats: accumulated depreciation & impairment loss	18 000	
	Boats: cost (old)		50 000
	Boats: cost (new)	33 000	
	Bank (33 000 – 9 000)		24 000
	Loss on trade-in [(50 000 – 18 000) – 9 000]	23 000	
	Trade-in of damaged boats for new boats		
30 June X1	Depreciation	6 600	
	Boats: accumulated depreciation & impairment loss		6 600
	Depreciation of new boats (33 000 X 20%)		

Solution 10.13

Part A (Cost model)

a) Disclosure

WANDERERS LIMITED
EXTRACT FROM STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 30 JUNE 20X3

		Note	C
Profit before tax	(300 000 – 110 000 + 100 000)	2	290 000
Taxation		3	(87 000)
Profit for the period			203 000
Other comprehensive income			-
Total comprehensive income			203 000

WANDERERS LIMITED
EXTRACT FROM STATEMENT OF FINANCIAL POSITION
AT 30 JUNE 20X3

	Note	C
Non-current assets		
Property, plant and equipment	4	320 000
Non-current liabilities		
Deferred tax	5	96 000

WANDERERS LIMITED
EXTRACT FROM NOTES TO THE FINANCIAL STATEMENTS
AT 30 JUNE 20X3

			C
2	**Profit before tax**		
	Profit before tax is stated after taking into account the following:		
	Depreciation		110 000
	Reversal of impairment		(100 000)
3	**Taxation**		
	Normal tax		
	- Current tax	W4	10 000
	- Deferred tax	W2	77 000
	Income tax expense		87 000

Solution 10.13 continued …

4 Property, plant and equipment

Equipment

Net carrying amount: 1 July 20X2		330 000
Cost		800 000
Less accumulated depreciation	(20X1: depr 160 000 + imp loss 200 000 + 20X2: depr 110 000)	(470 000)
Depreciation		(110 000)
Reversal of impairment		100 000
Net carrying amount: 30 June 20X3		320 000
Cost		800 000
Less accumulated depreciation	(470 000 + 20X3: depr 110 000 – imp rev 100 000)	(480 000)

Due to changes in technology, an impairment loss of C100 000 relating to equipment has been reversed during the period. The recoverable amount is based on the fair value less costs to sell, determined by market prices.

5 Deferred tax asset/ (Liability)

The deferred tax balance comprises temporary differences caused by:

- Property, plant and equipment (96 000)

b) Journal

	Debit	Credit
Accumulated depreciation and impairment losses	100 000	
Reversal of impairment loss		100 000
Recording increase in recoverable amount (equipment carried under the cost model)		

Solution 10.13 continued …

Part B (Revaluation model, impairment in 20X1, revaluation increase in 20X3)

Journal entries at 30 June 20X1

	Debit	Credit
Depreciation	160 000	
Equipment: accumulated depreciation and impairment losses		160 000
Depreciation on equipment for the year (800 000 x 20%)		
Impairment loss	200 000	
Equipment: accumulated depreciation and impairment losses		200 000
Impairment to fair value less costs to sell (CA = 800 000 – 160 000 = 640 000 RA= 440 000 640 000 – 440 000 = 200 000)		
Deferred tax	28 000	
Tax expense		28 000
Deferred tax on temporary differences on depreciation and impairment (200 000 x 30% = 60 000 DTA + (266 667 – 160 000) x 30% = 32 000 DTL)		

Journal entries at 30 June 20X3

	Debit	Credit
Depreciation	110 000	
Equipment: accumulated depreciation and impairment losses		110 000
Depreciation for the period (440 000 / 4 = 110 000)		
Equipment: accumulated depreciation and impairment losses	100 000	
Impairment loss reversed		100 000
Reversal of impairment up to historical carrying amount (current carrying amount: 220 000 – historical carrying amount: 320 000)		
Equipment: accumulated depreciation and impairment losses	480 000	
Equipment		480 000
Set-off of accumulated depreciation and impairment losses against the cost account = 20X1 depreciation: 160 000 + 20X1 impairment: 200 000 + 20X2 depreciation: 110 000 + 20X3 depreciation: 110 000 – 20X3 impairment reversal: 100 000)		
Equipment: cost	180 000	
Revaluation surplus		180 000
Revaluation above historical carrying amount (historical carrying amount: 320 000 - fair value: 500 000)		
Revaluation surplus	54 000	
Deferred tax		54 000
Deferred tax on revaluation surplus (180 000 x 30%)		
Tax expense	77 000	
Deferred tax		77 000
Deferred tax on depreciation and impairment reversed versus tax allowances: [266 667 – (100 000 – 110 000)] x 30%		

Solution 10.13 continued …

Part C (Revaluation model, revaluation decrease in 20X1, revaluation increase in 20X3)

Journal entries at 30 June 20X1

	Debit	Credit
Depreciation	160 000	
Equipment: accumulated depreciation and impairment losses		160 000
Depreciation for the year (800 000 x 20%)		
Equipment: accumulated depreciation and impairment losses	160 000	
Equipment		160 000
Transfer of accumulated depreciation to cost account		
Revaluation expense	200 000	
Equipment		200 000
Revaluation of equipment to fair value (640 000 – 440 000 = 200 000)		
Deferred tax	28 000	
Tax expense		28 000
Deferred tax on temporary differences on depreciation and revaluation (200 000 x 30% = 60 000 DTA + (266 667 – 160 000) x 30% = 32 000 DTL)		

Journal entries at 30 June 20X3

	Debit	Credit
Depreciation	110 000	
Equipment: accumulated depreciation and impairment losses		110 000
Depreciation for the period (440 000 / 4 = 110 000)		
Equipment: accumulated depreciation	220 000	
Equipment		220 000
Set-off of accumulated depreciation against the cost account (20X2: 110 000 + 20X3: 110 000)		
Equipment: cost	280 000	
Revaluation income		100 000
Revaluation surplus		180 000
Reversal of revaluation expense up to historical carrying amount (current carrying amount: 220 000 – historical carrying amount: 320 000)		
Revaluation above historical carrying amount (fair value: 500 000 – historical carrying amount: 320 000)		
Revaluation surplus	54 000	
Deferred tax		54 000
Deferred tax on revaluation surplus (180 000 x 30%)		
Tax expense	77 000	
Deferred tax		77 000
Deferred tax on depreciation and impairment reversed versus tax allowances: [266 667 – (100 000 – 110 000)] x 30%		

Solution 10.13 continued …

Workings

W1: Carrying amount of equipment		HCA	ACA
01/07/X0	Cost	800 000	800 000
30/06/X1	Depreciation	(160 000)	(160 000)
	Impairment loss		(200 000)
	Historical carrying amount / Recoverable amount (A and B) or fair value (C)	640 000	440 000
30/06/X2	Depreciation	(160 000)	(110 000)
30/06/X3	Depreciation	(160 000)	(110 000)
	Historical carrying amount / Fair value (part B and C)	320 000	220 000
	Reversal of impairment loss		100 000
(For part A)	Limited to		320 000
(For part B and C)	Revaluation surplus		180 000
	Fair value		500 000

W2: Deferred tax (Part A)		Carrying amount	Tax base	Temporary difference	Deferred tax	
01/07/X0	Cost	800 000	800 000			
30/06/X1	Depreciation / tax allowance	(160 000)	(266 667)			
		640 000				
	Impairment loss (A) or Revaluation expense(B)	(200 000)	-	93 333	28 000	Dr DT Cr TE
	Balance	440 000	533 333	93 333	28 000	DTA
30/06/X2	Depreciation / tax allowance	(110 000)	(266 667)	(156 667)	(47 000)	Dr TE Cr DT
	Balance	330 000	266 666	(63 334)	(19 000)	DTL
30/06/X3	Depreciation / tax allowance	(110 000)	(266 666)			
	Reversal of impairment loss	100 000	-	(256 666)	(77 000)	Dr TE Cr DT
	Balance	320 000	-	(320 000)	(96 000)	DTL

W3: Deferred tax (Part B and C)		Carrying amount	Tax base	Temporary difference	Deferred tax	
01/07/X0	Cost	800 000	800 000			
30/06/X1	Depreciation / tax allowance	(160 000)	(266 667)			
	Impairment loss	(200 000)	-	93 333	28 000	Dr DT Cr TE
	Balance	440 000	533 333	93 333	28 000	DTA
30/06/X2	Depreciation / tax allowance	(110 000)	(266 667)	(156 667)	(47 000)	Dr TE Cr DT
	Balance	330 000	266 666	(63 334)	(19 000)	DTL
30/06/X3	Depreciation / tax allowance	(110 000)	(266 666)			
	Reversal of impairment loss (B) or Revaluation income (C)	100 000	-	(256 666)	(77 000)	Dr TE Cr DT
	Revaluation surplus	180 000	-	(180 000)	(54 000)	Dr RS Cr DT
	Balance	500 000	-	(500 000)	(150 000)	DTL

Solution 10.13 continued …

W4: Tax computation (Part A and B)		X 0.30	
Profit before tax	290 000	87 000	Dr Tax expense
Temporary differences	(256 666)	77 000	Cr Deferred tax
+ depreciation	110 000		
- impairment loss reversed	(100 000)		
- wear and tear	(266 666)		
Taxable profit	33 334	10 000	Cr Current tax payable

Ledger accounts (not required in question)

Cost model: Part A

Equipment			
Description	C	Description	C
Bank	800 000		
		Balance	800 000
	800 000		800 000
Balance	800 000		

Accumulated depreciation			
Description	C	Description	C
		Depreciation (X1)	160 000
		Impairment (X1)	200 000
		Depreciation (X2)	110 000
		Depreciation (X3)	110 000
Reversal of impairment (X3)	100 000		
Balance	480 000		
	580 000		580 000
		Balance	480 000

Revaluation model: Part B

Equipment			
Description	C	Description	C
Bank	800 000		
		Balance	800 000
	800 000		800 000
Balance	800 000		
		Accumulated depreciation (X3)	480 000
Revaluation surplus (X3)	180 000	Balance	500 000
	980 000		980 000
Balance	500 000		

Accumulated depreciation & impairment losses			
Description	C	Description	C
		Depreciation (X1)	160 000
Balance	360 000	Impairment (X1)	200 000
	360 000		360 000
		Balance	360 000
Reversal of impairment (X3)	100 000	Depreciation (X2)	110 000
Equipment (X3)	480 000	Depreciation (X3)	110 000
Balance	0		
	580 000		580 000
		Balance	0

Solution 10.13 continued …

Revaluation model: Part C

Equipment

Description	C	Description	C
Bank	800 000	Accumulated depreciation (X1)	160 000
		Revaluation expense (X1)	200 000
		Balance	440 000
	800 000		800 000
Balance	440 000		
Revaluation income (X3)	100 000	Accumulated depreciation (X3)	220 000
Revaluation surplus (X3)	180 000	Balance	500 000
	720 000		720 000
Balance	500 000		

Accumulated depreciation

Description	C	Description	C
Equipment (X1)	160 000	Depreciation (X1)	160 000
		Depreciation (X2)	110 000
		Depreciation (X3)	110 000
Equipment (X3)	220 000		
Balance	0		
	220 000		220 000
		Balance	0

Solution 10.14

a) IAS 16: terms used

Both the cost model and the revaluation model refer to the *measurement* of property, plant and equipment. The cost model requires that the asset be carried at 'cost less accumulated depreciation and accumulated impairment losses' and prevents the value of the asset from ever exceeding the historical carrying amount. The revaluation model requires the asset to be carried at 'fair value less accumulated depreciation and accumulated impairment losses' and does not prevent the carrying amount from exceeding the historical carrying amount. In both cases, however, the asset may be shown at a value below historical carrying amount**.**

b) Increase excluding deferred tax effects (IAS 16 – revaluation model)

i) Increase in value:

Actual carrying amount [100 000 – (100 000 x 20% x 1 year)]	80 000
Fair value	90 000
Increase in value	10 000

	Debit	Credit
Plant: accumulated depreciation	20 000	
Plant		20 000
Reversal of accumulated depreciation		
Plant	10 000	
Revaluation surplus		10 000
Increase in value of plant		

ii) Depreciation of plant for 20X2

Revised carrying amount (fair value)	90 000
Less residual value	0
Depreciable amount (FV : C90 000 – residual value : C0)	90 000
Divide by remaining useful life (5 – 1 years)	4
Depreciation	22 500

	Debit	Credit
Depreciation	22 500	
Plant		22 500
Depreciation of plant		

iii) Transfer of revaluation surplus for 20X2

Revaluation surplus	10 000
Divide by remaining useful life (5 – 1 years)	4
Transfer (Dr revaluation surplus; Cr retained earnings)	2 500

	Debit	Credit
Revaluation surplus	2 500	
Retained earnings		2 500
Realised portion of revaluation surplus transferred to retained earnings		

Solution 10.14 continued …

The company makes this transfer to offset the decrease in profits resulting from the additional increase in depreciation (which resulted from the increase in value of the asset by C10 000). This can be proved as follows:

Revised depreciation	22 500
Historic depreciation (80 000 / 4 yrs or 100 000 / 5 yrs)	20 000
Increase in depreciation, thus decrease in profits	2 500

c) Increase including deferred tax (IAS 16 – revaluation model with IAS 12)

i) Increase in value:

Actual carrying amount [100 000 – (100 000 x 20% x 1 year)]	80 000
Fair value	90 000
Increase in value	10 000
Revaluation surplus (10 000 x 70%)	7 000
Deferred tax (10 000 x 30%)	3 000

		CA	*TB*	*TD*	*DT*	
01/01/X1	Cost	100 000	100 000			
	Depreciation / tax allowance	(20 000)	(20 000)			
31/12/X1	Balance	80 000	80 000	0	0	
01/01/X2	Revaluation surplus	10 000	-	(10 000)	(3 000)	^Dr RS Cr DT
		90 000	80 000	(10 000)	(3 000)	
31/12/X2	Depreciation / tax allowance	(22 500)	(20 000)	2 500	750	^Dr DT Cr TE
		67 500	60 000	(7 500)	(2 250)	DT liability

	Debit	Credit
Plant: accumulated depreciation	20 000	
Plant		20 000
Reversal of accumulated depreciation on plant		
Plant carrying amount	10 000	
Revaluation surplus		7 000
Deferred taxation		3 000
Increase in value of plant with deferred tax effect		

Explanation:
The tax base is still C80 000 (Cost: C100 000 – Tax allowance: C100 000 x 20%) yet the carrying amount is C90 000. This equates to a taxable temporary difference of C10 000 which must be provided for: C10 000 x 30%. Please note that the transfer to deferred tax does not affect the tax expense in any way. It is statement of financial position deferred tax (i.e. debited to revaluation surplus and not debited to tax expense).

Solution 10.14 continued …

This may be better understood if the adjusting journal entry is done in two steps instead:

	Debit	Credit
Plant	10 000	
Revaluation surplus		10 000
Increase on revaluation of plant (pre-tax)		
Revaluation surplus	3 000	
Deferred taxation		3 000
Deferred tax effect of revaluation surplus on plant		

ii) Depreciation of plant for 20X2 (unchanged)

Revised carrying amount (fair value)	90 000
Less residual value	0
Depreciable amount	90 000
Divide by remaining useful life (5 - 1years)	4
	22 500

	Debit	Credit
Depreciation	22 500	
Plant: accumulated depreciation		22 500
Depreciation on plant		
Deferred tax	750	
Tax expense		750
Deferred tax on depreciation vs tax allowance (22 500 – 20 000) x 30%		

iii) Transfer of revaluation surplus for 20X2

Revaluation surplus (C10 000 – C3 000)	7 000
Divide by remaining useful life (5 - 1years)	4
	1 750

	Debit	Credit
Revaluation surplus	1 750	
Retained earnings		1 750
Realised portion of revaluation surplus transferred to retained earnings		

The company makes this transfer to offset the additional decrease in after tax profits as a result of increasing the value of the asset by C10 000. This can be proved as follows:

Revised depreciation	22 500
Historic depreciation (80 000 / 4 yrs or 100 000 / 5 yrs)	20 000
Increase in depreciation, thus decrease in profits (before tax effects thereof)	2 500
Decrease in tax expense as a result of a decrease in profits (2 500 x 30%)	(750)
After tax effect (decrease) on profits for the year	1 750

Solution 10.14 continued …

d) Decrease excluding tax effects (IAS 16 – revaluation model)

i) Decrease in value:

Actual carrying amount [100 000 – (100 000 x 20% x 1 year)]	80 000
Fair value	70 000
Decrease in value	10 000

	Debit	Credit
Plant: accumulated depreciation	20 000	
Plant		20 000
Reversal of accumulated depreciation on plant		
Revaluation expense	10 000	
Plant		10 000
Revaluation of plant		

ii) Depreciation of plant for 20X2

Revised carrying amount (fair value)	70 000
Less residual value	0
Depreciable amount	70 000
Divide by remaining useful life (5 – 1 years)	4
Debit depreciation; credit accumulated depreciation	17 500

	Debit	Credit
Depreciation	17 500	
Plant: accumulated depreciation		17 500
Depreciation of plant		

iii) N/A because there is no revaluation surplus

e) Decrease including deferred tax effects (IAS 16 – revaluation model with IAS 12)

		CA	TB	TD	DT	
01/01/X1	Cost	100 000	100 000			
	Depreciation / tax allowance	(20 000)	(20 000)			
31/12/X1	Balance	80 000	80 000	0	0	
01/01/X2	Reval decrease	(10 000)	-	10 000	3 000	^Dr DT Cr TE
31/12/X2	Depreciation / tax allowance	(17 500)	(20 000)	(2 500)	(750)	^Dr TE Cr DT
		52 500	60 000	7 500	2 250	DT asset

Solution 10.14 continued …

i. Decrease in value (unchanged)

Actual carrying amount [100 000 – (100 000 x 20% x 1 year)]	80 000
Fair value	70 000
Decrease in value	10 000

	Debit	Credit
Plant: accumulated depreciation	20 000	
Plant		20 000
Reversal of accumulated depreciation		
Revaluation expense	10 000	
Plant		10 000
Revaluation of plant (PS the deferred tax on this adjustment is included in (ii) below)		

ii. Depreciation of plant for 20X2 (unchanged)

Revised carrying amount (fair value)	70 000
Less residual value	0
Depreciable amount	70 000
Divide by remaining useful life (5 – 1years)	4
	17 500

	Debit	Credit
Depreciation	17 500	
Plant: accumulated depreciation		17 500
Depreciation of plant		
Deferred tax ^ *(3 000 – 750)*	2 250	
Tax expense		2 250
Deferred tax effects of plant-related expenses and tax allowances		

f) IAS 16: revaluation model – impairment; ignoring tax

i) Decrease in value:

Actual carrying amount [100 000 – (100 000 x 20% x 1 year)]	80 000
Recoverable amount	70 000
Decrease in value	10 000

	Debit	Credit
Impairment loss	10 000	
Plant: accumulated depreciation / accumulated impairment losses		10 000
Impairment of plant		

Solution 10.14 continued …

ii) Depreciation of plant for 20X2

Revised carrying amount (recoverable amount)	70 000
Less residual value	0
Depreciable amount	70 000
Divide by remaining useful life (5 – 1 years)	4
Debit depreciation; credit plant: accumulated depreciation	17 500

	Debit	Credit
Depreciation	17 500	
Plant: accumulated depreciation		17 500
Depreciation of plant		

iii) N/A because there is no revaluation surplus

g) IAS 16 – cost model – increase in value; ignoring tax

No adjustment is made since the recoverable amount (90 000) exceeds the historical carrying amount (C80 000), which is, in this case, equal to the actual carrying amount. The cost model disallows valuing the asset above its historical carrying amount.

h) IAS 16: cost model – decrease in value

i) Decrease in value

Actual carrying amount [100 000 – (100 000 x 20% x 1 year)]	80 000
Recoverable amount	70 000
Decrease in value	10 000

	Debit	Credit
Impairment loss	10 000	
Plant: accumulated depreciation / accumulated impairment losses		10 000
Impairment of plant		

ii) Depreciation of plant for 20X2

Revised carrying amount (fair value)	70 000
Divide by remaining useful life (5 - 1years)	4
	17 500

	Debit	Credit
Depreciation	17 500	
Plant carrying amount		17 500
Depreciation of plant		

Solution 10.15

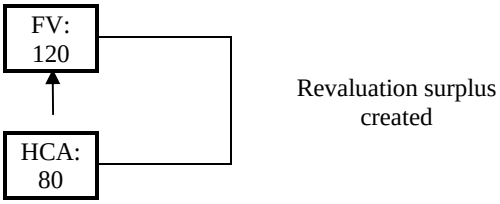
Comprehensive calculation (combining all 4 year's adjustments in one calculation)

		ACA	HCA
01/01/X1	Cost	100 000	100 000
31/12/X1	Depreciation	(20 000)	(20 000)
		80 000	80 000
01/01/X2	***Revaluation surplus (above HCA)***	***40 000***	
01/01/X2	Fair value	120 000	
31/12/X2	Depreciation	(30 000)	(20 000)
		90 000	60 000
01/01/X3	***Revaluation surplus (down to HCA)***	***(30 000)***	
		60 000	
01/01/X3	***Revaluation expense***	***(10 000)***	
01/01/X3	Fair value	50 000	
31/12/X3	Depreciation	(16 667)	(20 000)
		33 333	40 000
01/01/X4	***Revaluation income***	***6 667***	
		40 000	
01/01/X4	***Revaluation surplus (above HCA)***	***10 000***	
01/01/X4	Fair value	50 000	
31/12/X4	Depreciation	(25 000)	(20 000)
31/12/X4	Carrying amount	(25 000)	(20 000)

Alternative calculations (detailing each year's adjustments on a year-by-year basis)

1 January 20X2

Actual carrying amount (100K - 20K)	80 000
Adjustment through Statement of comprehensive income	0
Historical carrying amount (100K - 20K)	80 000
Adjustment through statement of financial position (Revaluation Surplus - Cr)	40 000
Fair value	120 000



Solution 10.15 continued . . .

Journal

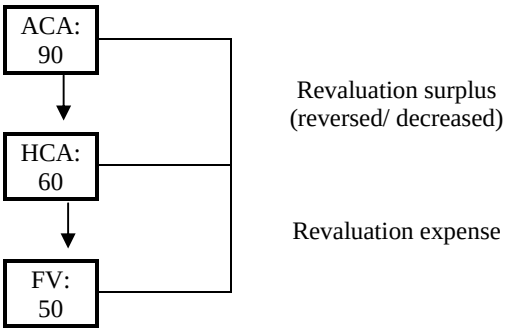
	Debit	Credit
Plant: accumulated depreciation	20 000	
Plant		20 000
Reversal of accumulated depreciation		
Plant	40 000	
Revaluation surplus		40 000
Increase in value		

Journal at end of 20X2:

	Debit	Credit
Depreciation	30 000	
Plant: accumulated depreciation		30 000
Depreciation of asset (120 000 / 4 years)		
Revaluation surplus	10 000	
Retained earnings		10 000
Reversal of excess depreciation (40 000 / 4 years left)		

1 January 20X3

Actual carrying amount (120K - 120K/4 x 1yr) or (80 + 40 – 30)	90 000
Adjustment through statement of financial position (reversal: 90 – 60) or (40 – 10)	30 000
Historical carrying amount (100K - 100K/ 5 x 2 yrs)	60 000
Adjustment through Statement of comprehensive income (revaluation expense: 60 – 50)	10 000
Fair value (given)	50 000



Solution 10.15 continued . . .

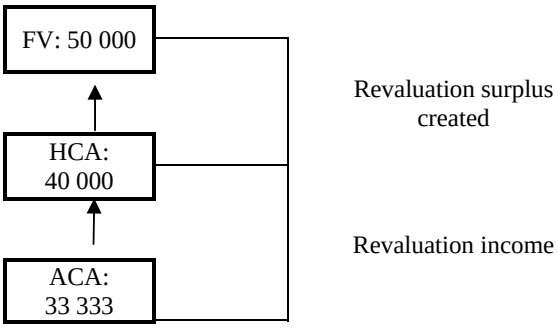
	Debit	Credit
Plant: accumulated depreciation	30 000	
Plant		30 000
Reversal of accumulated depreciation		
Revaluation Surplus	30 000	
Revaluation expense	10 000	
Plant		40 000
Reversal of revaluation surplus on asset (40 - 10) or (90 - 60)		
Further impairment of asset (below HCA) (60 – 50)		

Journal at end of 20X3:

	Debit	Credit
Depreciation	16 667	
Plant: accumulated depreciation		16 667
Depreciation of asset (C50 000 / 3 remaining years)		

1 January 20X4

Actual carrying amount (50K – 16 667)	33 333
Adjustment through statement of comprehensive income (revaluation income)	6 667
Historical carrying amount (100K - 100K/ 5 x 3 yrs)	40 000
Adjustment through statement of financial position (Revaluation Surplus)	10 000
Fair value	50 000



	Debit	Credit
Plant: accumulated depreciation and impairment losses	16 667	
Plant		16 667
Reversal of accumulated depreciation		
Plant	16 667	
Revaluation income		6 667
Revaluation surplus		10 000
Revaluation income (up to HCA) (40 000 – 33 333)		
Revaluation of asset (above HCA) (50 000 – 40 000)		

Solution 10.15 continued …

Journal at end of 20X4:

	Debit	Credit
Depreciation	25 000	
Plant: accumulated depreciation and impairment losses		25 000
Depreciation of asset (50 000 / 2 remaining years)		
Revaluation surplus	5 000	
Retained earnings		5 000
Reversal of excess depreciation (10 000 / 2 years)		

Ledger accounts: not required but given for your interest

Revaluation decrease at 1/1/20X3

Plant

Description	C	Description	C
Cost	100 000	Accumulated depreciation (X2)	20 000
Revaluation surplus (X2)	40 000	Balance	120 000
	140 000		140 000
Balance	120 000	Accumulated depreciation (X3)	30 000
		Revaluation surplus (X3)	30 000
		Revaluation expense (X3)	10 000
		Balance	50 000
	120 000		120 000
Balance	50 000	Accumulated depreciation (X4)	16 667
Revaluation income (X4)	6 667		
Revaluation surplus (X4)	10 000	Balance	50 000
	66 667		66 667
Balance	50 000		

Accumulated depreciation

Description	C	Description	C
Balance	20 000	Depreciation (X1)	20 000
	20 000		20 000
Plant (X2)	20 000	Balance	20 000
Balance	30 000	Depreciation (X2)	30 000
	50 000		50 000
Plant (X3)	30 000	Balance	30 000
Balance	16 667	Depreciation (X3)	16 667
	46 667		46 667
Plant (X4)	16 667	Balance	16 667
		Depreciation (X4)	25 000
	25 000		25 000
		Balance	25 000

Revaluation surplus

Description	C	Description	C
C/ earnings (X2)	10 000	Plant (X2)	40 000
Balance c/d	30 000		
	40 000		40 000
Plant (X3)	30 000	Balance b/d	30 000
C/ earnings (X4)	5 000	Plant (X4)	10 000
Balance c/d	5 000		
	10 000		10 000
		Balance b/d	5 000

Solution 10.16

Part A

i) Journals

	Debit	Credit
Year end 31/12/20X8		
1 January 20X8		
Plant	1 000 000	
Bank		1 000 000
Purchase of plant		
31 December 20X8		
Depreciation	200 000	
Plant: accumulated depreciation		200 000
Depreciation of plant: (1 000 000 – 0) / 5 years		
Year end 31/12/20X9		
1 January 20X9		
Plant: accumulated depreciation	200 000	
Plant		200 000
Set-off of acc depr against cost before revaluation		
Plant	100 000	
Revaluation surplus		100 000
Increase in carrying amount: FV 900 000 – CA (1 000 000 – 200 000)		
31 December 20X9		
Depreciation	225 000	
Plant: accumulated depreciation		225 000
Depreciation of plant: 900 000 / 4 years		
Revaluation surplus	25 000	
Retained earnings		25 000
Realised portion of revaluation surplus: 100 000 / 4 yrs		
Year end 31/12/Y0		
1 January 20Y0		
Plant: accumulated depreciation	225 000	
Plant		225 000
Set-off of acc depr against cost before revaluation		
Revaluation surplus	75 000	
Plant		75 000
Revaluation expense	100 000	
Plant		100 000
ACA = 900 000 – 225 000 = 675 000; HCA = 1 000 000 – 200 000 x 2yrs = 600 000		
FV = 500 000 (given)		
Total decrease = 675 000 – 500 000 = 175 000		
Debit to RS = 675 000 – 600 000 = 75 000		
Debit to revaluation expense = 600 000 – 500 000 = 100 000		
31 December 20Y0		
Depreciation	166 667	
Plant: accumulated depreciation and impairment losses		166 667
Depreciation of plant: 500 000 / 3 years		

Solution 10.16 continued. . .

Part A continued …

ii) Statement of changes in equity

CARRYON LTD
EXTRACT FROM STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 20Y0

	Revaluation surplus C	Retained earnings C	Total C
Balance - 1 January 20X9	0	xxx	xxx
Total comprehensive income	100 000	x	x + 100 000
Transfer to retained earnings	(25 000)	25 000	0
Balance - 1 January 20Y0	75 000	xxx	xxx
Total comprehensive income	(75 000)	x	X - (75 000)
Balance – 31 December 20Y0	0	xxx	xxx

iii) Note disclosure

CARRYON LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20Y0

	20Y0 C	20X9 C	20X8 C
4. Property, Plant and Equipment			
Net carrying amount - 1 January	675 000	800 000	0
Gross carrying amount	900 000	1 000 000	0
Accumulated depreciation and impairment losses	(225 000)	(200 000)	0
Acquisition	0	0	1 000 000
Increase / (decrease) in asset value			
- through revaluation surplus	(75 000)	100 000	0
- through revaluation expense	(100 000)	0	0
Depreciation	(166 667)	(225 000)	(200 000)
Net carrying amount – 31 December	333 333	675 000	800 000
Gross carrying amount	600 000	900 000	1 000 000
Accumulated depreciation and impairment losses	(266 667)	(225 000)	(200 000)
Carrying amount based on the cost model	400 000	600 000	800 000

Plant was re-valued by an independent appraiser and member of the Institute of Valuers. The effective date of the most recent valuation is 1 January 20Y0. The fair value was determined with reference to an active market.

Please note: the 20X8 and 20X9 amounts (comparatives) were not required and have been given for interest sake only.

Solution 10.16 continued. . .

Part B

i) Journals

	Debit	Credit
Year end 31/12/20X8		
1 January 20X8		
Plant	1 000 000	
Bank		1 000 000
Purchase of plant		
31 December 20X8		
Depreciation	200 000	
Plant: accumulated depreciation and impairment losses		200 000
Depreciation of plant: (1 000 000 – 0) / 5 years		
Year end 31/12/20X9		
1 January 20X9		
Plant: accumulated depreciation and impairment losses	200 000	
Plant		200 000
Set-off of acc depr against cost before revaluation		
Plant	100 000	
Revaluation surplus		100 000
Increase in carrying amount: FV 900 000 – CA (1 000 000 – 200 000): all above HCA of 800 000		
Revaluation surplus	30 000	
Deferred taxation		30 000
Statement of financial position based deferred tax: DT on creation of revaluation surplus: 100 000 x 30% or W1		
31 December 20X9		
Depreciation	225 000	
Plant: accumulated depreciation and impairment losses		225 000
Depreciation of plant: 900 000 / 4 years		
Revaluation surplus	17 500	
Retained earnings		17 500
Realised portion of revaluation surplus: (100 000 – 30 000) / 4 yrs		
Deferred tax	7 500	
Taxation expense		7 500
Statement of comprehensive income based deferred tax: [tax allowance on plant (1 000 000 x 20%) - plant expenses (depreciation: 225 000)] x 30% or W1		

Solution 10.16 continued. . .

Part B continued …

	Debit	Credit
Year end 31/12/Y0		
1 January 20Y0		
Plant: accumulated depreciation and impairment losses	225 000	
Plant		225 000
Set-off of acc depr against cost before revaluation		
Revaluation surplus	75 000	
Plant		75 000
Revaluation expense	100 000	
Plant		100 000
ACA = 900 000 – 225 000 = 675 000		
HCA = 1 000 000 – 200 000 x 2yrs = 600 000		
FV = 500 000 (given)		
Total decrease = 675 000 – 500 000 = 175 000		
Debit to RS = 675 000 – 600 000 = 75 000		
Debit to impairment expense = 600 000 – 500 000 = 100 000		
Deferred tax	22 500	
Revaluation surplus		22 500
Statement of financial position based deferred tax: reversed revaluation surplus: 75 000 x 30%		
31 December 20Y0		
Depreciation	166 667	
Plant: accumulated depreciation and impairment losses		166 667
Depreciation of plant: 500 000 / 3 years		
Deferred tax	20 000	
Tax expense		20 000
Statement of comprehensive income based deferred tax: [tax allowance on plant (1 000 000 x 20%) – plant expenses (depr 166 667 + imp loss 100 000)] x 30% or W1: 30 000 – 10 000		

ii) Statement of changes in equity

CARRYON LTD
EXTRACT FROMSTATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 20Y0 (EXTRACTS)

	Revaluation surplus C	Retained earnings C	Total C
Balance - 1 January 20X9	0	xxx	xxx
Total comprehensive income	*70 000	x	x + 70 000
Transfer to retained earnings	(17 500)	17 500	0
Balance - 1 January 20Y0	52 500	xxx	xxx
Total comprehensive income	^(52 500)	x	x - (52 500)
Balance – 31 December 20Y0	0	xxx	xxx

* (100 000 – 30 000)
^ [(75 000) + 22 500)]

Solution 10.16 continued. . .

Part B continued …

iii) Disclosure

CARRYON LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20Y0 (EXTRACTS)

3. Taxation

Normal taxation			
Current tax	xxx	xxx	xxx
Deferred tax	(20 000)	(7 500)	0

4. Property, Plant and Equipment

Net carrying amount – 1 January	675 000	800 000	0
Gross carrying amount	900 000	1 000 000	0
Accumulated depreciation and impairment losses	(225 000)	(200 000)	0
Acquisition	-	-	1 000 000
Increase / (decrease) in asset value			
- through revaluation surplus	(75 000)	100 000	-
- through revaluation expense	(100 000)		-
Depreciation	(166 667)	(225 000)	(200 000)
Net carrying amount – 31 December	333 333	675 000	800 000
Gross carrying amount	600 000	900 000	1 000 000
Accumulated depreciation and impairment losses	(266 667)	(225 000)	(200 000)
Carrying amount based on the cost model	400 000	600 000	800 000

Plant was revalued by an independent, sworn appraiser and member of the Institute of Valuers. The effective date of the most recent valuation is 1 January 20Y0. The fair value was determined with reference to an active market.

5. Tax on other comprehensive income

	20Y0	**20X9**	**20X8**
	C	**C**	**C**
Revaluation of plant			
Net	(52 500)	70 000	
Gross	(75 000)	100 000	-
Tax	22 500	(30 000)	-

Solution 10.16 continued. . .

Part B continued …

	20Y0 C	20X9 C	20X8 C
6. Deferred Taxation Asset/ (Liability)			
Property, plant and equipment	20 000	(22 500)	0
Opening balance	(22 500)	0	0
Statement of comprehensive income based deferred tax	20 000	7 500	0
Statement of financial position based deferred tax			0
- Revaluation surplus	22 500	(30 000)	
Closing balance	20 000	(22 500)	0

Please note: Disclosure of the 20X9 and 20X8 amounts (comparatives) were not required and have been given for interest sake only.

Workings

W1: Deferred tax calculation:

Deferred tax on property, plant and equipment

	Historical CA	Carrying amount	Tax base	Temporary difference	Deferred tax		Reval surplus	Retain earn
Cost	1 000 000	1 000 000	1 000 000	0	0			
Depr/ w&t (CA/5 years)	(200 000)	(200 000)	(200 000)	0	0			
20X8 balances	**800 000**	**800 000**	**800 000**	**0**	**0**			
Revaluation surplus		100 000		(100 000)	(30 000)	cr DT dr RS	(70 000)	
	800 000	900 000	800 000				(70 000)	
Depr/ w&t (CA/4 years)	(200 000)	(225 000)	(200 000)	25 000	7 500	dr DT cr TE	17 500	(17 500)
20X9 balances	**600 000**	**675 000**	**600 000**	**(75 000)**	**(22 500)**	**DTL**	(52 500)	
Reversal of RS		(75 000)		75 000	22 500	dr DT cr RS	52 500	
	600 000	600 000	600 000				0	
Reval exp		(100 000)		100 000	30 000	dr DT cr TE		
Fair value		500 000						
Depr/ w&t (CA/3years)	(200 000)	(166 667)	(200 000)	(33 333)	(10 000)	cr DT dr TE	0	
20Y0 balances	**400 000**	**333 333**	**400 000**	**66 667**	**20 000**	**DTA**	0	

Please note that historical carrying amounts, revaluation surplus and retained earnings are not required as part of the deferred tax calculation.

iv) Disclosure of the closing balance assuming the GRVM was used

Net carrying amount – 31 December 20Y0	333 333	balancing figure
Gross carrying amount - 31 December 20Y0	833 333	500 000 / 3 x 5yrs
Accumulated depreciation – 31 December 20Y0	(500 000)	833 333 / 5 x 3yrs

Solution 10.17

Part A

i) Journals	Debit	Credit
20X5		
01-07-20X5		
Vehicles	500 000	
Bank		500 000
Purchase of vehicles		
31-12-20X5		
Depreciation	50 000	
Vehicles: accumulated depreciation		50 000
Depreciation on vehicles: 500 000 / 5 x 6/12		
20X6		
31-12-20X6		
Depreciation (500 000 / 5 x 1 full year)	100 000	
Vehicles: accumulated depreciation		100 000
Depreciation on vehicles: (500 000 / 5 x 1 full year)		
20X7		
01-01-20X7		
Vehicles: accumulated depreciation	150 000	
Vehicles		150 000
Set-off of acc depr against cost before revaluing: 100K + 50K		
Vehicles: cost	70 000	
Revaluation surplus		70 000
Revaluation of carrying amount to fair value:		
420 000 – (500 000 – 150 000)		
31-12-20X7		
Depreciation	120 000	
Vehicles: accumulated depreciation		120 000
Depreciation on vehicles: 420 000 / (5 - 1.5 years)		
Revaluation surplus	20 000	
Retained earnings		20 000
Realised portion of revaluation surplus: 70 000 / 3.5 years		
20X8		
31-12-20X8		
Depreciation	120 000	
Vehicles: accumulated depreciation		120 000
Depreciation on vehicles: 420 000 / (5 - 1.5 years)		
Revaluation surplus	20 000	
Retained earnings		20 000
Realised portion of revaluation surplus: 70 000 / 3.5 years		

Solution 10.17 continued …

Part A continued …

i) Journals continued …	Debit	Credit
20X9		
01-01-20X9		
Vehicles: accumulated depreciation	240 000	
Vehicles		240 000
Set-off of acc depreciation against cost before revaluing: 120K +120K		
Revaluation surplus	15 000	
Vehicles		15 000
Total decrease: CA (420 – 240K) – FV: 165 000 = 15 000 *HCA: 500 000 – 50 000 – 100 000 – 100 000 – 100 000 = 150 000* *Since the FV is still greater than HCA, there is no revaluation expense; the entire drop in value is debited to the RS (there will still be a balance on the RS)*		
31-12-20X9		
Depreciation	110 000	
Vehicles: accumulated depreciation		110 000
Depreciation on vehicles: 165 000 / (5 - 3.5 years)		
Revaluation surplus	10 000	
Retained earnings		10 000
Realised portion of revaluation surplus: *(70 000 – 20 000 – 20 000 - 15 000) / (5 - 3.5 years)*		

ii) Disclosure

MIDWAY LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED AT 31 DECEMBER 20X9 (EXTRACTS)

1. Accounting policies (not required - for explanatory purposes only)

1.1 Non-current assets and depreciation

Vehicles are shown at fair value less subsequent accumulated depreciation and impairment losses

.

Depreciation is charged so as to write off the cost or valuation of assets, over their estimated useful lives using the straight line method. The estimated useful lives, residual values and depreciation method are reviewed at each year end, with the effect of any changes in estimate accounted for in a prospective basis.

1.2 Deferred taxation

Deferred tax is recognized on differences between carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet method.

2. Profit from before taxation	**20X9 C**	**20X8 C**
Profit before taxation is stated after taking the following into consideration:		
• Depreciation *(see journals or W1)*	110 000	120 000

Solution 10.17 continued …

Part A continued …

3. Non-current assets -

Vehicles	**20X9 C**	**20X8 C**
Net carrying amount - beginning of year	180 000	300 000
Gross carrying amount	420 000	420 000
Accumulated depreciation	(240 000)	(120 000)
Increase/ (decrease) in value - though revaluation surplus	(15 000)	0
Depreciation	(110 000)	(120 000)
Net carrying amount - end of year	55 000	180 000
Gross carrying amount	165 000	420 000
Accumulated depreciation	(110 000)	(240 000)
Carrying amount of vehicles based on cost model:	50 000	150 000

Vehicles were revalued by an independent sworn appraiser and a member of the Institute of Valuers. The adjustment was recorded using a net replacement value basis. The fair value was estimated based on a future income approach. The effective date of the last revaluation is 1 January 20X9.

MIDWAY LTD
STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 20X9 (EXTRACTS)

	Revaluation surplus C	**Retained earnings C**	**Total C**
Opening balance: 1/1/20X8	50 000	X	X
Transfer to retained earnings	(20 000)	20 000	0
Opening balance: 1/1/20X9	30 000	20 000	50 000
Total comprehensive income	(15 000)	x	x - (15 000)
Transfer to retained earnings	(10 000)	10 000	0
Closing balance: 31/12/20X9	5 000	30 000	35 000

Solution 10.17 continued …

Part B

i) Journals	Debit	Credit
20X8		
01-07-20X5		
Vehicles	500 000	
Bank		500 000
Purchase of vehicles		
31-12-20X5		
Depreciation	50 000	
Vehicles: accumulated depreciation		50 000
Depreciation on vehicles: 500 000 / 5 x 6/12		
20X6		
31-12-20X6		
Depreciation	100 000	
Vehicles: accumulated depreciation		100 000
Depreciation on vehicles: (500 000 / 5 x 1 full year)		
20X7		
01-01-20X7		
Vehicles: accumulated depreciation	150 000	
Vehicles		150 000
Set-off of acc depr against cost before revaluing: 100K + 50K		
Vehicles	70 000	
Revaluation surplus		70 000
Revaluation of carrying amount to fair value: 420 000 – (500 000 – 150 000)		
Revaluation surplus	21 000	
Deferred tax		21 000
Statement of financial position based deferred tax: on revaluation surplus: 70 000 x 30%/ W1		
31-12-20X7		
Depreciation	120 000	
Vehicles: accumulated depreciation		120 000
Depreciation on vehicles: 420 000 / (5 - 1.5 years)		
Deferred tax	6 000	
Taxation		6 000
Statement of comprehensive income based deferred tax: [tax allowance on vehicles (500 000 x 20%) – depreciation on vehicles: 120 000] x 30% or W1		
Revaluation surplus	14 000	
Retained earnings		14 000
Revaluation surplus transferred to retained earnings: (70 000 - 21 000) / 3.5 years		
20X8		
31-12-20X8		
Depreciation	120 000	
Vehicles: accumulated depreciation		120 000
Depreciation on vehicles: 420 000 / (5 - 1.5 years)		
Deferred tax	6 000	
Taxation		6 000
SOCI based deferred tax: [tax allowance (500 000 x 20%) – depreciation: 120 000] x 30% or W1		
Revaluation surplus	14 000	
Retained earnings		14 000
Revaluation surplus transferred to retained earnings: (70 000 - 21 000) / 3.5 years		

Solution 10.17 continued …

Part B continued …

i) Journals continued …	Debit	Credit
20X9		
01-01-20X9		
Vehicles: accumulated depreciation	240 000	
Vehicles		240 000
Set-off of acc depr against cost before revaluing: 120K +120K		
Revaluation surplus	15 000	
Vehicles		15 000
Total decrease: CA (420K – 240K) – FV: 165 000 = 15 000 *HCA: 500 000 – 50 000 – 100 000 – 100 000 – 100 000 = 150 000* *Since the FV is still greater than HCA, there is no revaluation expense; the entire drop in value is debited to the RS (and there will still be a balance on the RS)*		
Deferred tax	4 500	
Revaluation surplus		4 500
Statement of financial position based deferred tax: on revaluation surplus 15 000 x 30% / W1		
31-12-20X9		
Depreciation	110 000	
Vehicles: accumulated depreciation		110 000
Depreciation on vehicles: 165 000 / (5 - 3.5 years)		
Deferred tax	3 000	
Taxation		3 000
SOCI based deferred tax: [tax allowance (500 000 x 20%) – depreciation: 110 000] x 30% or W1		
Revaluation surplus	7 000	
Retained earnings		7 000
Realised portion of revaluation surplus transferred to retained earnings: (70 000 – 21 000 – 14 000 – 14 000 – 15 000 + 4 500) / 1.5 years		

Solution 10.17 continued . . .

W1: Calculation of Deferred Taxation (Balance sheet approach)

	HCA	ACA	TB	TD	DT		RS
1/1/20X5	0	0	0	0	0		
	500 000	500 000	500 000				
Dep/tax allow	(50 000)	(50 000)	(50 000)				
31/12/20X5	450 000	450 000	450 000	0	0		
Dep/tax allow	(100 000)	(100 000)	(100 000)				
31/12/20X6	350 000	350 000	350 000	0	0		
RS created		70 000	0	(70 000)	(21 000)	Cr DT Dr RS	49 000
		420 000					
Dep/tax allow	(100 000)	(120 000)	(100 000)	20 000	6 000	Dr DT Cr TE	(14 000)
31/12/20X7	250 000	300 000	250 000	(50 000)	(15 000)	L	35 000
Dep/tax allow	(100 000)	(120 000)	(100 000)	20 000	6 000	Dr DT Cr TE	(14 000)
31/12/20X8	150 000	180 000	150 000	(30 000)	(9 000)	L	21 000
RS reversed		(15 000)	0	15 000	4 500	Dr DT Cr RS	(10 500)
		165 000					10 500
Dep/tax allow	(100 000)	(110 000)	(100 000)	10 000	3 000	Dr DT Cr TE	(7 000)
31/12/20X9	50 000	55 000	50 000	(5 000)	(1 500)	L	3 500
Dep/tax allow	(50 000)	(55 000)	(50 000)	5 000	1 500	Dr DT Cr TE	(3 500)
30/6/20Y0	0	0	0	0	0		0

Please note:
The movement in 20Y0 was not required to be shown – this was given purely for your interest.

Solution 10.17 continued …

Part B continued …

ii) Disclosure

MIDWAY LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED AT 31 DECEMBER 20X9 (EXTRACTS)

1. Accounting policies (not required - for explanatory purposes only)

1.1 Non-current assets and depreciation

Vehicles are shown at fair value less subsequent accumulated depreciation and impairment losses

.

Depreciation is charged so as to write off the cost or valuation of assets, over their estimated useful lives using the straight line method. The estimated useful lives, residual values and depreciation method are reviewed at each year end, with the effect of any changes in estimate accounted for in a prospective basis.

1.2 Deferred taxation

Deferred tax is recognized on differences between carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet method.

2. Profit from before taxation	**20X9 C**	**20X8 C**
Profit before taxation is stated after taking the following into consideration:		
Depreciation *(see journals or W1)*	110 000	120 000

3. Property, plant and equipment

Vehicles	**20X9 C**	**20X8 C**
Net carrying amount - beginning of year	180 000	300 000
Gross carrying amount	420 000	420 000
Accumulated depreciation	(240 000)	(120 000)
Increase/ (decrease) in value - though revaluation surplus	(15 000)	0
Depreciation	(110 000)	(120 000)
Net carrying amount - end of year	55 000	180 000
Gross carrying amount	165 000	420 000
Accumulated depreciation	(110 000)	(240 000)

Vehicles were revalued by an independent sworn appraiser and a member of the Institute of Valuers on a net replacement value basis. The fair value was estimated based on a future income approach. The effective date of the last revaluation is 1 January 20X9.

Carrying amount of vehicles based on cost model:	50 000	150 000

Solution 10.17 continued …

4. Taxation	**20X9**	**20X8**
	C	**C**
Normal Taxation		
Current	xxx	Xxx
Deferred	(3 000)	(6 000)

5. Deferred taxation asset/ (liability)		
Deferred tax comprises temporary differences caused by:		
Property, plant and equipment	(1 500)	(9 000)
Reconciliation:		
Opening balance	(9 000)	(15 000)
Statement of comprehensive income deferred tax charge	3 000	6 000
Statement of financial position based deferred tax:		
- on reversal of revaluation surplus	4 500	0
Closing balance	(1 500)	(9 000)

6. Tax on other comprehensive income

	20X9	**20X8**
Revaluation of plant		
Net	(10 500)	-
Gross	(15 000)	-
Tax	4 500	-

MIDWAY LTD
EXTRACT FROM STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 20X9 (EXTRACTS)

	Revaluation surplus	**Retained earnings**	**Total**
	C	**C**	**C**
Opening balance: 1/1/20X8	35 000	X	X
Transfer to retained earnings	(14 000)	14 000	0
Opening balance: 1/1/20X9	21 000	14 000	35 000
Total comprehensive income	*(10 500)	x	x - (10 500)
Transfer to retained earnings	(7 000)	7 000	0
Closing balance: 31/12/20X9	3 500	21 000	24 500

* [(15 000) + 4 500]

Solution 10.18

(a) Journal entries for 20X6

		Debit	Credit
01/07/X5	Plant	900 000	
	Bank		900 000
	Purchase of plant		
30/06/X6	Depreciation	225 000	
	Accumulated depreciation		225 000
	(900 000 / 4)		
	Accumulated depreciation	225 000	
	Plant		225 000
	(Reversal of balance of accumulated depreciation)		
	Plant	150 000	
	Revaluation surplus		106 500
	Deferred tax		43 500
	(Revaluation of plant) (825 000 – 675 000)		

(b) Extracts from statement of comprehensive income, statement of financial position and statement of changes in equity

GREENHOUSE LIMITED
EXTRACT FROM STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 30 JUNE 20X7

		Note	C
Profit before tax		2	300 000
Income tax expense	(116 000 – 29 000)	3	(87 000)
Profit for the period			213 000
Other comprehensive income			
Revaluation decrease	(100 000 x 0.71)		(71 000)
Total comprehensive income			142 000

GREENHOUSE LIMITED
EXTRACT FROM STATEMENT OF FINANCIAL POSITION
FOR THE YEAR ENDED 30 JUNE 20X7

	Note	C
Non-current assets		
Property, plant and equipment	4	400 000
Non-current liabilities		
Deferred tax	5	14 500

Solution 10.18 continued …

GREENHOUSE LIMITED
EXTRACT FROM STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 30 JUNE 20X7

		Revaluation reserve C	Retained earnings C
01/07/X7	Balance	106 500	xx
	Total comprehensive income	(71 000)	213 000
	Transfer to retained earnings	(35 500)	35 500
30/06/X7	Balance	-	xx

(c) Extracts from notes to the financial statements

GREENHOUSE LIMITED
EXTRACT FROM NOTES TO THE FINANCIAL STATEMENTS
AT 30 JUNE 20X7

1 Accounting policies

Property, plant and equipment
Plant is stated at revalued amount, being the fair value at the date of revaluation less subsequent accumulated depreciation and subsequent accumulated impairment losses. The plant is revalued annually.

Depreciation is charged so as to write off the cost or valuation of assets over their estimated useful lives, using the straight line method.

Deferred tax (not required for answer)
Deferred tax is recognised on the differences between the carrying amount of assets and liabilities and their corresponding tax bases used in the computation of taxable profit, and is accounted for using the statement of financial position liability method.

		C
2 Profit before tax		
Profit before tax is stated after taking into account the following:		
Depreciation		275 000
Revaluation expense		50 000
3 Taxation		
Normal tax		
- Current tax	W2	116 000
- Deferred tax	W1	(29 000)
Income tax expense		87 000

Solution 10.18 continued . . .

		C
4 Property, plant and equipment		
Plant		
Net carrying amount at 01/ 07/X6:		825 000
Gross carrying amount	(900 000 – 225 000 + 150 000)	825 000
Accumulated depreciation		(0)
Depreciation	(825 000 / 3 years)	(275 000)
Revaluation decrease		(150 000)
Net carrying amount at 30/06/X7		400 000
Gross carrying amount	(825 000 – 275 000 – 150 000)	400 000
Accumulated depreciation		(0)
Carrying amount using the cost model		450 000

The plant has been revalued at 30 June 20X7, by an independent valuer, with reference to discounted cash flows.

5 Deferred tax asset/ (liability)

The deferred tax balance comprises temporary differences caused by:

Property, plant and equipment	(14 500)

6. Tax on other comprehensive income

Revaluation of plant	
Net	71 000
Gross	100 000
Tax	(29 000)

Solution 10.18 continued …

Workings

W1. HCA / ACA & Deferred tax			HCA	ACA	TB	TD	DT		RS
01/07/X5	Cost		900	900	900				
30/06/X6	Depreciation / tax allowance	(900 / 4)	(225)	(225)	(225)				
			675	675	675				
	Revaluation		-	150	-	150	43.5		106,5
	Balance		675	825	675	150	43.5	**Cr**	106,5
30/06/X7	Depreciation / tax allowance	*(825 / 3)	(225)	*(275)	(225)	(50)	(14.5)	Dr	
	Transfer of RS to RE	[(275 – 225) X 0.71] or (106.5 / 3)							(35,5)
			450	550	450	100	29	Cr	71
	Revaluation decrease			(150)					
	(Reversal of RS)			(100)		(100)	(29)	Dr	(71)
	(Revaluation expense)			(50)		(50)	(14.5)	Dr	
	Balance		450	400	450	(50)	(14.5)	**Dr**	-
30/06/X8	Depreciation / tax allowance	*(400 / 2)	(225)	*(200)	(225)	25	7.25	Cr	
	Balance		225	200	225	(25)	(7.25)	**Dr**	-

Not required for answer

W2: Tax computation		X 0.29	
Profit before tax	300 000	87 000	Dr TE Cr DT
Temporary differences	100 000	29 000	
+ depreciation	275 000		
- tax allowance	(225 000)		
+ revaluation expense	50 000		
Taxable profit	400 000	116 000	Dr TE Cr CTP

Solution 10.19

a) Journals

	Debit	Credit
Year end 28/02/20X8		
1 January 20X8		
Plant: cost	600 000	
Bank		600 000
Purchase of plant		
Depreciation – plant	20 000	
Plant: accumulated depreciation		20 000
Depreciation of plant: (600 000 / 5 x 2/12)		
Year end 28/02/20X9		
1 March 20X8		
Plant: accumulated depreciation	20 000	
Plant: cost		20 000
Set-off of accumulated depreciation before revaluation (NRVM)		
Plant: cost (725 000 – 580 000)	145 000	
Revaluation surplus		145 000
Increase in carrying amount to fair value of 725 000		
Revaluation surplus	43 500	
Deferred taxation (B/S)		43 500
Deferred tax on revaluation surplus: (145 000 x 30%) or W1		
28 February 20X9		
Depreciation – plant	150 000	
Plant: accumulated depreciation		150 000
Depreciation on plant: 725000/58m x 12m		
Revaluation surplus	21 000	
Retained earnings		21 000
Transfer of realised portion of revaluation surplus to retained earnings (145 000 – 43 500)/ (58m x 12m) or (actual depreciation: 150 000 – historic depreciation: 120 000) x 70%		
Deferred tax	9 000	
Taxation expense		9 000
Deferred tax adjustment due to plant-related expenses versus tax allowances: (150K – 120K) x 30% OR W1		

Solution 10.19 continued …

	Debit	Credit
Year end 28/2/20Y0		
1 March 20X9		
Plant: accumulated depreciation	150 000	
Plant: cost		150 000
Set-off of accumulated depreciation before revaluation (NRVM)		
Revaluation surplus	69 000	
Plant: cost		69 000
Decrease in carrying amount to fair value of 506 000 *HCA = 600 000-20 000-120 000 = 460 000* *ACA = 725 000-150 000 = 575 000* *Revaluation decrease = 575000-506000 = 69 000* *against revaluation surplus =* *575 000-506 000 (not limited by the 460 000) = 69 000*		
Deferred tax	20 700	
Revaluation surplus		20 700
Deferred tax on revaluation decrease of 69 000 x 30%		
Depreciation – plant	132 000	
Plant: accumulated depreciation		132 000
Depreciation of plant: 506 000 / 46 months x 12 months		
Deferred tax	3 600	
Tax expense		3 600
Deferred tax adjustment due to differences between plant-related expenses and the related tax allowances: (132K – 120K) x 30%		
Revaluation surplus	8 400	
Retained earnings		8 400
Transfer of realised portion of revaluation surplus to retained earnings: (145 – 43.5 - 21 – 69 + 20.7)/ 46 x 12 x 70% OR *(actual depreciation: 132 – historic depreciation: 120) x 70% OR* *(506 000 – 460 000) / 46 m x 12m x 70%*		

Solution 10.19 continued …

b) Statement of changes in equity

WIMBLES LIMITED
(EXTACTS FROM) STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 28 FEBRUARY 20Y0

		Revaluation surplus	Retained earnings	Total
Balance - 1 March 20X8		0	xxx	
Total comprehensive income	(1)	101 500	xxx	Xxx
Transfer to retained earnings	(3)	(21 000)	21 000	0
Balance - 1 March 20X9		80 500	xxx	Xxx
Total comprehensive income	(2)	(48 300)	xxx	xxx
Transfer to retained earnings	(4)	(8 400)	8 400	0
Balance - 28 February 20Y0		23 800	xxx	Xxx

(1) (725 000 – 580 000) x 70% = 101 500
(2) (506 000 – 575 000) x 70% = 48 300
(3) 101 500 / 58m x 12m = 21 000
(4) (80 500 – 48 300) / 46m x 12m = 8 400

c) Note disclosure

WIMBLES LIMITED.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 28 FEBRUARY 20Y0 (EXTRACTS)

	20Y0	20X9	20X8
2. Profit before tax			
Is stated after taking the following into account:			
Depreciation	132 000	150 000	20 000
3. Taxation			
Normal taxation			
Current tax	xxx	xxx	xxx
Deferred tax	(3 600)	(9 000)	0
4. Property, plant and equipment			
Net carrying amount – 1st March	575 000	580 000	0
Gross carrying amount	725 000	600 000	0
Accumulated depreciation	(150 000)	(20 000)	0
Acquisition	-	-	600 000
Revaluation increase / (decrease)	(69 000)	145 000	-
Depreciation	(132 000)	(150 000)	(20 000)
Net carrying amount - 28th February	374 000	575 000	580 000
Gross carrying amount	506 000	725 000	600 000
Accumulated depreciation	(132 000)	(150 000)	(20 000)

Plant was revalued on 1st March 20X9 by Mr. Wimble, an independent, sworn appraiser and member of the Institute of Valuers on the net replacement value basis.

Cost model carrying amount (600-20-120-120)	340 000	460 000	580 000

Solution 10.19 continued …

WIMBLES LIMITED.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 28 FEBRUARY 20Y0 (EXTRACTS)

	20Y0	20X9	20X8
5. Deferred taxation asset/ (liability)			
The deferred tax balance is caused by temporary differences relating to:			
Property plant and equipment	(10 200)	(34 500)	0
Opening balance	(34 500)	0	0
Deferred tax adjustment recognised in:			
- profit or loss	3 600	9 000	0
- other comprehensive income	20 700	(43 500)	0
Closing balance	(10 200)	(34 500)	0

Note: disclosure of the 20X8 figures were not required and have been given for interest sake only.

6. Tax on other comprehensive income

	20Y0	20X9	20X8
Revaluation of plant			
Net	(48 300)	101 500	0
- Gross	(69 000)	145 000	0
- Less tax	20 700	(43 500)	0

Workings

W1: Deferred tax calculation:

Capital allowances

	HCA	ACA	Tax base	Temporary difference	Deferred tax		Revaluation surplus	Retained earnings
01/01/20X8								
Cost	600 000	600 000	600 000	0	0			
Depr/ tax all (/60 X2)	(20 000)	(20 000)	(20 000)	0	0			
28/02/20X8	**580 000**	**580 000**	**580 000**	**0**	0			
Revaluation surplus		145 000		(145 000)	(43 500)	Cr DT Dr RS	(145 000) 43 500	
	580 000	725 000	580 000				(101 500)	
Depr/ tax all (/58 X12)	(120 000)	(150 000)	(120 000)	30 000	9 000	Dr DT Cr TE	21 000	(21 000)
28/02/20X9	**460 000**	**575 000**	**460 000**	**(115 000)**	**(34 500)**	**DTL**	**(80 500)**	
Reversal of RS		(69 000)		69 000	20 700	Dr DT Cr RS	69 000 (20 700)	
	460 000	506 000	460 000				(32 200)	
Depr/ tax all (/46 X12)	(120 000)	(132 000)	(120 000)	12 000	3 600	Dr DT Cr TE	8 400	(8 400)
28/02/20Y0	**340 000**	**374 000**	**340 000**	**(34 000)**	**(10 200)**	**DTL**	**(23 800)**	

Please note:
The historical carrying amount column (HCA), revaluation surplus and retained earnings columns are not required as part of the deferred tax calculation.

Solution 10.19 continued …

Supporting ledger accounts (not required – given for your interest only)

Plant: cost

Description	C	Description	C
Bank	600 000	Balance c/f	600 000
	600 000		600 000
Balance b/f	600 000	Plant: accum. depreciation	20 000
Revaluation surplus	145 000	Balance c/f	725 000
	745 000		745 000
Balance b/f	725 000	Plant: accum. depreciation	150 000
		Revaluation surplus	69 000
		Balance c/f	506 000
	725 000		725 000
Balance b/f	506 000		

Plant: accumulated depreciation

Description	C	Description	C
Balance c/f	20 000	Depreciation (X8)	20 000
	20 000		20 000
Plant: cost	20 000	Balance b/f	20 000
Balance c/f	150 000	Depreciation (X9)	150 000
	150 000		150 000
Plant: cost	150 000	Balance b/f	150 000
Balance c/f	132 000	Depreciation (Y0)	132 000
	282 000		282 000
		Balance b/f	132 000

Solution 10.20

a) Journal entries

	Debit	Credit
31/12/20X1		
Machinery:	500 000	
Bank/ Accounts payable		500 000
Purchase of machinery		
Depreciation	100 000	
Accumulated depreciation & impairment loss: machinery		100 000
Depreciation: (500 000 – 0) / 5 years		

Note: recoverable amount (RA: 420 000) exceeds actual carrying amount (ACA: 400 000): no adjustment using the cost model since the ACA equals the HCA

31/12/20X2		
Depreciation	100 000	
Accumulated depreciation & impairment loss: machinery		100 000
Depreciation: (500 000 – 0) / 5 years		
Impairment loss (expense)	20 000	
Accumulated depreciation & impairment loss: machinery		20 000
Write- down ACA of 300 000 to RA of 280 000		
Deferred tax (asset)	6 000	
Taxation (expense)		6 000
See deferred tax table W1		
31/12/20X3		
Depreciation	93 333	
Accumulated depreciation & impairment loss: machinery		93 333
Depreciation: (280 000 – 0) / 3 years remaining		
Accumulated depreciation & impairment loss: machinery	13 333	
Reversal of impairment loss		13 333
Write-back of ACA to RA, limited to HCA		
ACA: 280 000 - 93 333 = 186 667; HCA: 500 000 - 500 000/5 x 3 = 200 000		
RA: 250 000; therefore write-back: limited to 200 000 (not 250 000) - 186 667 = 13 333		

Solution 10.20 continued ….

a) Journal entries continued …

31/12/20X3 continued …

	Debit	Credit
Taxation (expense)	6 000	
Deferred taxation (asset)		6 000
See deferred tax table W1: 2 000 + 4 000		
31/12/20X4		
Depreciation	100 000	
Accumulated depreciation & impairment loss: machinery		100 000
Depreciation: (200 000 – 0) / 2 years		
Impairment loss	15 000	
Accumulated depreciation & impairment loss: machinery		15 000
Write-down ACA of 100 000 to RA of 85 000		
HCA: 500 000 – 500 000/ 5 x 4 = 100 000		
ACA: 200 000 – 100 000 = 100 000		
RA: 85 000; therefore write-down = 100 000 – 85 000 = 15 000		
Deferred tax (asset)	4 500	
Taxation (expense)		4 500
See deferred tax table W1		
31/12/20X5		
Depreciation	85 000	
Accumulated depreciation & impairment loss: machinery		85 000
Depreciation: (85 000 – 0) / 1 year		
Taxation (expense)	4 500	
Deferred taxation (asset)		4 500
See deferred tax table W1		

Note:
It is submitted that, in the event that the recoverable amount at the end of 31/12/20X5 (the end of its useful life) was greater than the residual value at the end of its useful life, (in this case, zero) then this should be treated as a change in estimate:
- either the estimated useful life was too short
- or the residual value was underestimated

In which case, the depreciation will be held to have been too much over the years, and the depreciation adjusted. In either case, it is not possible to *write-back* anything since a write-back is limited to all previous depreciated write-downs/ impairments.

Solution 10.20 continued ….

b) Disclosure

MACHINES LTD.
EXTRACTS FROM STATEMENT OF FINANCIAL POSITION
AT 31 DECEMBER 20X5

	Note	20X5 C	20X4 C	20X3 C	20X2 C	20X1 C
ASSETS						
Property, plant and equipment	5	0	85 000	200 000	280 000	400 000
Deferred tax	6	0	4 500	0	6 000	0

MACHINES LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X5

1. Basis of preparation

These financial statements have been prepared in accordance with the approved accounting standards as applicable in Pakistan. Approved accounting standards comprise of such International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board as are notified under the Companies Ordinance, 198, provisions of and directives issued by under the Companies Ordinance, 1984. In case the requirements differ, the provisions or directives of the Companies Ordinance, 1984 shall prevail.

2. Accounting policies

2.1 **Non-current assets**
Machinery is stated at cost less subsequent accumulated depreciation and subsequent accumulated impairment losses. .

Depreciation is charged so as to write off the cost of assets over their estimated useful lives, using the straight line method.

2.2 **Deferred taxation**
Deferred tax is provided using the balance sheet liability method, on all the temporary differences at the balance sheet date between the tax base of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax asset are recognized for all deductible temporary differences, carry forward of unused tax losses, to the extent that is probable that future taxable profit will be available against which the deductible temporary difference, unused tax losses and tax credits can be utilized.

Carrying amount of deferred tax asset is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that the related tax benefit will be realized. Deferred taxis calculated at the rates that are expected to apply to the period when differences reverse based on the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date.

3. Profit before tax
Profit before tax is stated after

	20X5	20X4	20X3	20X2	20X1
	C	C	C	C	C
Depreciation	85 000	100 000	93 333	100 000	100 000
Impairment of machinery	0	15 000	0	20 000	0
Reversal of impairment of machinery	0	0	(13 333)	0	0

Solution 10.20 continued ….

b) Disclosure continued …

MACHINES LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X5 CONTINUED …

4. Taxation

	20X5 C	20X4 C	20X3 C	20X2 C	20X1 C
Normal tax					
- current tax	xxx	xxx	xxx	xxx	xxx
- deferred tax	4 500	(4 500)	6 000	(6 000)	0

5. Property, plant and equipment

	20X5 C	20X4 C	20X3 C	20X2 C	20X1 C
Net carrying amount: 1 January	85 000	200 000	280 000	400 000	0
Gross carrying amount	500 000	500 000	500 000	500 000	0
Accumulated depreciation and impairment losses	(415 000)	(300 000)	(220 000)	(100 000)	0
Purchases	0	0	0	0	500 000
Depreciation	(85 000)	(100 000)	(93 333)	(100 000)	(100 000)
Impairment loss	0	(15 000)	0	(20 000)	0
Reversal of impairment	0	0	13 333	0	0
Net carrying amount: 31 December	0	85 000	200 000	280 000	400 000
Gross carrying amount	500 000	500 000	500 000	500 000	500 000
Accumulated depreciation and impairment losses	(500 000)	(415 000)	(300 000)	(220 000)	(100 000)

6. Deferred taxation asset/ (liability)

	20X5 C	20X4 C	20X3 C	20X2 C	20X1 C
The deferred tax balance is caused by temporary differences resulting from:					
Property, plant and equipment	0	4 500	0	6 000	0

Solution 10.20 continued ….

Workings

W1 Deferred tax calculation - balance sheet approach

		HCA	ACA	Tax base	Temporary difference	Deferred tax	
Cost	20X1	500 000	500 000	500 000	0	0	
Depreciation	20X1	(100 000)	(100 000)	(100 000)	0	0	
31/12/20X1	**20X1**	**400 000**	**400 000**	**400 000**	**0**	**0**	
Depreciation	20X2	(100 000)	(100 000)	(100 000)	0	0	
	20X2	300 000	300 000	300 000			
Impairment loss	20X2	0	(20 000)	0	20 000	6 000	Dr DT Cr TE
31/12/20X2	**20X2**	**300 000**	**280 000**	**300 000**	**20 000**	**6 000**	**DTA**
Depreciation	20X3	(100 000)	(93 333)	(100 000)	(6 667)	(2 000)	Cr DT Dr TE
	20X3	200 000	186 667	200 000			
Reversal of IL (up to HCA)	20X3	0	13 333	0	(13 333)	(4 000)	Cr DT Dr TE
31/12/20X3	**20X3**	**200 000**	**200 000**	**200 000**	**0**	**0**	
Depreciation	20X4	(100 000)	(100 000)	(100 000)	0	0	
	20X4	100 000	100 000	100 000			
Impairment loss	20X4	0	(15 000)	0	15 000	4 500	Dr DT Cr TE
31/12/20X4	**20X4**	**100 000**	**85 000**	**100 000**	**15 000**	**4 500**	**DTA**
Depreciation	20X5	(100 000)	(85 000)	(100 000)	(15 000)	(4 500)	Cr DT Dr TE
31/12/20X5	**20X5**	**0**	**0**	**0**	**0**	**0**	

The 'Historical CA' column is used as a check to ensure that the carrying amount of the machine does not exceed the historical carrying amount. It is, however, generally unnecessary to show this column as part of your deferred tax calculation.

Solution 10.21

Part A

a) Journals

	Debit	Credit
Year end 31/12/20X1		
1 January 20X1		
Plant	100 000	
Bank		100 000
Purchase of plant		
31 December 20X1		
Depreciation	20 000	
Plant: accumulated depreciation and impairment loss		20 000
Depreciation of plant: (100 000 – 0) / 5 years		
Impairment loss	10 000	
Plant: accumulated depreciation and impairment loss		10 000
Depreciation of plant: CA: (100 000 – 20 000) – RA: 70 000		
Year end 31/12/20X2		
31 December 20X2		
Depreciation	17 500	
Plant: accumulated depreciation and impairment loss		17 500
Depreciation of plant: 70 000 / 4 years		
Plant: accumulated depreciation and impairment loss	7 500	
Impairment loss reversed		7 500
Previous impairment loss reversed: CA: (70 000 – 17 500) – RA: 65 000, limited to HCA: (100 000 – 100 000 x 20% x 2 years)		
Year end 31/12/20X3		
31 December 20X3		
Depreciation	20 000	
Plant: accumulated depreciation and impairment loss		20 000
Depreciation of plant: 60 000 /3 years		
Impairment loss	10 000	
Plant: accumulated depreciation and impairment loss		10 000
Impairment loss: CA: (60 000 – 20 000) – RA: 30 000		

Solution 10.21 continued …

Part A continued …

b) Note disclosure

RAINGO LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X3 (EXTRACTS)

	20X3	20X2	20X1
2. Profit before tax	**C**	**C**	**C**
Is stated after taking the following into account:			
Depreciation	20 000	17 500	20 000
Impairment loss / (impairment loss reversed)	10 000	(7 500)	10 000
4. Property, plant and equipment			
Net carrying amount - 1 January	60 000	70 000	0
Gross carrying amount	100 000	100 000	0
Accumulated depreciation	(40 000)	(30 000)	0
Acquisition	0	0	100 000
Depreciation	(20 000)	(17 500)	(20 000)
Impairment loss	(10 000)	0	(10 000)
Impairment loss reversed	0	7 500	0
Net carrying amount – 31 December	30 000	60 000	70 000
Gross carrying amount	100 000	100 000	100 000
Accumulated depreciation	(70 000)	(40 000)	(30 000)

The plant has been pledged as security for a loan (see note 6).
The impairment in 20X3 is as a result of damage incurred during a riot on the factory premises in October 20X3. The reversal of the impairment in 20X2 is as a result of repairs to the plant carried out during 20X2.

24. Capital commitments

The directors have contracted for the construction of a plant (to be complete in April 20X4) to the value of C500 000.

Please note that the figures for the year ended 31 December 20X1 were not required. These have been given for your interest only.

Solution 10.21

Part B

a) Journals

	Debit	Credit
Year end 31/12/20X1		
1 January 20X1		
Plant	100 000	
Bank		100 000
Purchase of plant		
31 December 20X1		
Depreciation	20 000	
Plant: accumulated depreciation and impairment loss		20 000
Depreciation of plant: (100 000 – 0) / 5 years		
Impairment loss	10 000	
Plant: accumulated depreciation and impairment loss		10 000
Depreciation of plant: CA: (100 000 – 20 000) – RA: 70 000		
Deferred tax	3 000	
Taxation		3 000
Deferred tax adjustment:		
[Tax allowance: (100 000 x 20%) – plant expenses:		
(depreciation 20 000 + impairment loss 10 000)] x 30%		
Year end 31/12/20X2		
31 December 20X2		
Depreciation	17 500	
Plant: accumulated depreciation and impairment loss		17 500
Depreciation of plant: 70 000 / 4 years		
Plant: accumulated depreciation and impairment loss	7 500	
Impairment loss reversed		7 500
Previous impairment loss reversed: CA: (70 000 – 17 500) – RA: 65 000,		
limited to HCA: (100 000 – 100 000 x 20% x 2 years)		
Taxation	3 000	
Deferred tax		3 000
Deferred tax adjustment:		
Tax allowance on plant: (100 000 x 20%) – plant expenses (depreciation		
17 500 – impairment loss reversed 7 500) x 30%		
Year end 31/12/20X3		
31 December 20X3		
Depreciation	20 000	
Plant: accumulated depreciation and impairment loss		20 000
Depreciation of plant: 60 000 /3 years		
Impairment loss	10 000	
Plant: accumulated depreciation and impairment loss		10 000
Impairment loss: CA: (60 000 – 20 000) – RA: 30 000		
Deferred tax	3 000	
Taxation		3 000
Deferred tax adjustment:		
[Tax allowance: (100 000 x 20%) – plant expenses:		
(depreciation 20 000 + impairment loss 10 000)] x 30%		

Solution 10.21 continued …

Part B continued …

b) Note disclosure

RAINGO LTD.
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X3 (EXTRACTS)

	20X3	20X2	20X1
2. Profit before tax	**C**	**C**	**C**
Is stated after taking the following into account:			
Depreciation	20 000	17 500	20 000
Impairment loss / (impairment loss reversed)	10 000	(7 500)	10 000
4. Taxation			
Normal taxation			
• Current	xxx	xxx	Xxx
• deferred	(3 000)	3 000	(3 000)
5. Deferred taxation asset/ (liability)			
Deferred tax comprises temporary differences on:			
• property, plant and equipment	3 000	0	3 000

Please note that the reconciliation between the deferred tax opening and closing balances is not required because the user is able to determine the amount of deferred tax charged to the statement of comprehensive income per class of deferred tax (i.e. property, plant and equipment) by subtracting the opening and closing balances of deferred tax.

10. Property, plant and equipment

Net carrying amount - 1 January	60 000	70 000	0
Gross carrying amount	100 000	100 000	0
Accumulated depreciation	(40 000)	(30 000)	0
Acquisition	0	0	100 000
Depreciation	(20 000)	(17 500)	(20 000)
Impairment loss	(10 000)	0	(10 000)
Impairment loss reversed	0	7 500	0
Net carrying amount – 31 December	30 000	60 000	70 000
Gross carrying amount	100 000	100 000	100 000
Accumulated depreciation	(70 000)	(40 000)	(30 000)

The plant has been pledged as security for a loan (see note 6).
The impairment in 20X3 is as a result of damage incurred during a riot on the factory premises in October 20X3. The reversal of the impairment in 20X2 is as a result of repairs to the plant carried out during 20X2.

24. Capital commitments

The directors have contracted for the construction of a plant (to be complete in April 20X4) to the value of C500 000.

Please note that the figures for the year ended 31 December 20X1 were not required. These have been given for your interest only.

Solution 10.21 continued …

Part B continued …

Workings

W1: Calculation of deferred tax using the balance sheet approach

	Date	HCA	ACA	TB	TD	DT
Balance	**1 Jan 20X1**	**0**	**0**	**0**	**0**	**0**
Purchase	1 Jan 20X1	100 000	100 000	100 000		
Depreciation (/ 5yrs)	31 Dec 20X1	(20 000)	(20 000)	(20 000)		
		80 000	80 000	80 000		
Impairment loss	31 Dec 20X1		(10 000)	0		
Balance	**31 Dec 20X1**	**80 000**	**70 000**	**80 000**	**10 000**	**3 000**
Depreciation (/ 4yrs)	31 Dec 20X2	(20 000)	(17 500)	(20 000)		
		60 000	52 500	60 000		
Impairment loss reversed	31 Dec 20X2		7 500	0		
Balance	**31 Dec 20X2**	**60 000**	**60 000**	**60 000**	**0**	**0**
Depreciation (/ 3yrs)	31 Dec 20X3	(20 000)	(20 000)	(20 000)		
		40 000	40 000	40 000		
Impairment loss	31 Dec 20X3		(10 000)	0		
Balance	**31 Dec 20X3**	**40 000**	**30 000**	**40 000**	**10 000**	**3 000**

Solution 10.22

a) Journals

	Debit	Credit
20X5		
01-05-20X5		
Plant	450 000	
Bank		450 000
Purchase of plant		
31-12-20X5		
Depreciation	60 000	
Plant: accumulated depreciation & impairment losses		60 000
Depreciation for the year (450 000 / 5 x 8/12)		
20X6		
31-12-20X6		
Depreciation	90 000	
Plant: accumulated depreciation & impairment losses		90 000
Depreciation for the year (450 000 / 5 x 12/12)		
Impairment loss	80 000	
Plant: accumulated depreciation and impairment losses		80 000
Impairment of plant (300-220)		
Deferred tax	24 000	
Tax expense		24 000
Deferred tax adjustment W2		
20X7		
31-12-20X7		
Depreciation	66 000	
Plant: accumulated depreciation & impairment losses		66 000
[220 000 / (60-8-12) x 12months]		
Tax expense	7 200	
Deferred tax		7 200
Deferred tax adjustment W2		
20X8		
31-12-20X8		
Depreciation	66 000	
Plant: accumulated depreciation & impairment losses		66 000
Depreciation for the year[220 000 / (60-8-12) x 12months]		
Plant: accumulated depreciation and impairment losses	32 000	
Impairment loss reversed		32 000
Reversal of impairment loss up to HCA W2		
Plant: accumulated depreciation & impairment losses	330 000	
Plant		330 000
Reversal of accumulated depreciation		
Tax expense	16 800	
Deferred tax		16 800
Deferred tax adjustment for 20X8 W2		
Plant	70 000	
Deferred tax		21 000
Revaluation surplus		49 000
Revaluation of plant to fair value (70 000 x 70%) / (70 000 x 30%)		

Solution 10.22 continued …

20X9		
31-12-20X9		
Depreciation	142 500	
Plant: accumulated depreciation & impairment losses		142 500
Depreciation for the year [190 000 / (60-8-12-12-12) x 12]		
Revaluation surplus	36 750	
Retained earnings		36 750
Realised portion of revaluation surplus [49 000 / (60-8-12-12-12) x 12] or (142 500 - 90 000) x 70%		
Deferred tax	15 750	
Taxation		15 750
Deferred tax adjustment W2		

Workings

W1: Calculation of revaluation	
Actual carrying amount (450 – 150 – 212)	88 000
Fair value	190 000
Increase in value	102 000
Reversal of impairment loss (ACA - HCA: 88 - 120)	32 000
Revaluation surplus (HCA - NRV: 120 – 190)	70 000

Where Historical CA = 450 - 60 - 90 - 90 - 90 = 120K

Solution 10.22 continued …

W2: Calculation of deferred taxation (balance sheet approach)

	HCA	ACA	TB	TD	DT		RS	RE
Cost	450 000	450 000	450 000	0	0			
Depreciation (450 000/60x8)	(60 000)	(60 000)	(60 000)	0	0			
31/12/20X5	**390 000**	**390 000**	**390 000**	**0**	**0**			
Depreciation (450000/60x12)	(90 000)	(90 000)	(90 000)	0	0			
Impairment loss		(80 000)		80 000	24 000	Dr DT Cr TE		
31/12/20X6	**300 000**	**220 000**	**300 000**	**80 000**	**24 000**	**DTA**		
Depreciation (300000/40x12) (220000/40x12)	(90 000)	(66 000)	(90 000)	(24 000)	(7 200)	Dr TE Cr DT		
31/12/20X7	**210 000**	**154 000**	**210 000**	**56 000**	**16 800**	**DTA**		
Depreciation	(90 000)	(66 000)	(90 000)	(24 000)	(7 200)	Dr TE Cr DT		
	120 000	88 000	120 000	32 000	9 600	DTA	16 800	Dr TE Cr DT
IL reversal up to HCA		32 000		(32 000)	(9 600)	Dr TE Cr DT		
	120 000	120 000	120 000	0	0			
Revaluation surplus		70 000		(70 000)	(21 000)	Dr RS Cr DT	(49 000)	
31/12/20X8	**120 000**	**190 000**	**120 000**	**(70 000)**	**(21 000)**	**DTL**		
Depreciation (120000/16x12) (190000/16x12)	(90 000)	(142 500)	(90 000)	52 500	15 750	Dr DT Cr TE	36 750	(36 750)
31/12/20X9	**30 000**	**47 500**	**30 000**	**(17 500)**	**(5 250)**	**DTL**	**12 250**	
Depreciation (30 000 /12 x 12) (47 500 /12 x 12)	(30 000)	(47 500)	(30 000)	17 500	5 250	Dr DT Cr TE	12 250	(12 250)
31/12/20X10	**0**	**0**	**0**	**0**	**0**		**0**	

Solution 10.22 continued …

Supporting ledger accounts

Plant

Description	C	Description	C
Bank	450 000	Balance	450 000
	450 000		450 000
Balance	450 000		
	450 000		450 000
Balance	450 000	Accumulated depreciation	330 000
Revaluation surplus	70 000		
		Balance	190 000
	520 000		520 000
Balance	190 000		

Accumulated depreciation

Description	C	Description	C
		Depreciation (X5)	60 000
		Depreciation (X6)	90 000
Balance	230 000	Impairment Loss	80 000
	230 000		230 000
		Balance	230 000
Balance	296 000	Depreciation (X7)	66 000
	296 000		296 000
		Balance	296 000
Plant	330 000	Depreciation (X8)	66 000
Impairment loss income	32 000		
Balance	0		
	362 000		362 000
		Balance	0
Balance	142 500	Depreciation (X9)	142 500
	274 500		274 500
		Balance	142 500

b) Disclosure in statement of comprehensive income

VALUES LTD
EXTRACT FROM STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 28 FEBRUARY 20X9

		Note	20X9 C	20X8 C
Profit before tax		2	800 000	600 000
Income tax expense	(20X9: 255 750 – 15 750) (20X8: 163 200 + 16 800)	3	(240 000)	(180 000)
Profit for the period			560 000	420 000
Other comprehensive income				
Revaluation of plant			-	49 000
Total comprehensive income			560 000	469 000

Solution 10.22 continued …

Working

Tax computation	**20X9**	**20X8**
Profit before tax	800 000	600 000
Add depreciation	142 500	66 000
Less tax depreciation	(90 000)	(90 000)
Less impairment loss reversal	-	(32 000)
Taxable income	852 500	544 000
Current taxation at 30%	(255 750)	(163 200)

c) Disclosure in the statement of changes in equity

VALUES LTD
EXTRACT FROM STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 28 FEBRUARY 20X9

	Revaluation surplus C	**Retained earnings C**	**Total C**
Opening balance: 1/1/20X8	0	x	x
Total comprehensive income	49 000	420 000	469 000
Closing balance: 31/12/20X8	49 000	x	x
Transfer from revaluation surplus to retained income	(36 750)	36 750	-
Total comprehensive income	-	560 000	560 000
Closing balance 31/12/20X9	12 250	x	x

d) Disclosure in the notes to the financial statements

VALUES LTD.
EXTRACTS FROM NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED AT 31 DECEMBER 20X9

	20X9 C	**20X8 C**
2. Profit from before taxation		
Profit before taxation is stated after taking the following into consideration		
Depreciation	142 500	66 000
Impairment loss reversed	-	(32 000)
3. Taxation		
Normal taxation		
- current tax	(255 750)	(163 200)
- deferred tax	15 750	(16 800)
Tax rate reconciliation		
Applicable tax rate	30%	30%
Tax effects of profit before tax	240 000	180 000
Income tax expense	240 000	180 000

C

Solution 10.22 continued …

	20X9 C	20X8 C
4. Deferred taxation asset/ (liability)		
Property, plant & equipment	(5 250)	(21 000)
Opening balance	(21 000)	16 800
Deferred tax in the statement of comprehensive income	15 750	(16 800)
Deferred tax on revaluation surplus	-	(21 000)
	(5 250)	(21 000)

5. Tax on other comprehensive income

Revaluation of plant		
Net	-	49 000
Gross	-	70 000
Tax	-	(21 000)

6. Property, plant and equipment

Plant		
Net carrying amount - beginning of year	190 000	154 000
Gross carrying amount	190 000	450 000
Accumulated depreciation	0	(296 000)
Impairment loss	-	-
Revaluation	-	102 000
- Impairment loss reversal	-	32 000
- Revaluation surplus	-	70 000
Depreciation	(142 500)	(66 000)
Net carrying amount - end of year	47 500	190 000
Gross carrying amount	190 000	190 000
Accumulated depreciation	(142 500)	0
Plant was revalued by Mr. X an independent sworn appraiser and a member of the Institute of Valuers on a net replacement value basis.		
The carrying amount of plant based on historical cost less accumulated depreciation would have been:	30 000	120 000

Solution 10.23

a) Gross replacement value method

ABLE LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X9

15 Property, plant and equipment		**20X9 C**	**20X8 C**
Net carrying amount – 1 January		6 000 000	6 500 000
Gross carrying amount – 1 January	20X8: 8 000 000/80% x 100% Note 1	10 000 000	10 000 000
Less accumulated depreciation and impairment losses – 1 January	20X8: 10 000 000 / 20 x 7 Note 2	(4 000 000)	(3 500 000)
Revaluation surplus	20X9: 9 000 000 – 6 000 000	3 000 000	0
Depreciation	20X8: 10 000 000/ 20 years in total 20X9: 9 000 000/ 12 years remaining Or: 15 000 000 / 20 years in total	(750 000)	(500 000)
Net carrying amount – 31 December		8 250 000	6 000 000
Gross carrying amount – 31 December	20X9: 9 000 000 / 60% x 100% Note 3	15 000 000	10 000 000
Less accumulated depreciation and impairment losses – 31 December	20X8: 10 000 000 / 20 x 8 20X9: 15 000 000 / 20 x 9	(6 750 000)	(4 000 000)
Carrying amount had the cost model been used		X	X

Plant was revalued by Trust Valuers, an independent valuer, to its fair value in use on 1 January 20X9.
Plant is revalued every 4 years and is recorded on the gross replacement value basis.

Note 1:
1 January 20X1 – 1 January 20X5 = 4 years
4 years / 20 years = 20% useful life expired
100% - 20% = 80% remaining useful life on date of first revaluation (or 16 years left)

Note 2:
1 January 20X1 – 1 January 20X8 = 7 years

Note 3:
1 January 20X1 – 1 January 20X9 = 8 years
8 years / 20 years = 40% useful life expired
100% - 40% = 60% remaining useful life on date of second revaluation

Solution 10.23 continued …

b) Net replacement value method

ABLE LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X9

15 Property, plant and equipment		**20X9 C**	**20X8 C**
Net carrying amount – 1 January		6 000 000	6 500 000
Gross carrying amount – 1 January	Given	8 000 000	8 000 000
Less accumulated depreciation and impairment losses – 1 January	20X8: 8 000 000 / 16 x 3 Note 1 & 2 20X9: 8 000 000 / 16 x 4 Note 1 & 3	(2 000 000)	(1 500 000)
Revaluation surplus	20X9: 9 000 000 – 6 000 000	3 000 000	
Depreciation	20X8: 8 000 000 / 16 years Note 1 20X9: 9 000 000 / 12 years Note 4	(750 000)	(500 000)
Net carrying amount – 31 December		8 250 000	6 000 000
Gross carrying amount – 31 December	Given	9 000 000	8 000 000
Less accumulated depreciation and impairment losses – 31 December	20X8: 8 000 000 / 16 x 4 Note 3 20X9: 9 000 000 / 12 x 1 year Note 4	(750 000)	(2 000 000)
Carrying amount had the cost model been used		X	X

Plant was revalued by Trust Valuers, an independent valuer, to its fair value in use on 1 January 20X9. Plant is revalued every 4 years and is recorded on the net replacement value basis.

Note 1:
1 January 20X1 – 1 January 20X5 = 4 years
20 – 4 years = 16 remaining years on date of first revaluation

Note 2:
1 January 20X5 – 1 January 20X8 = 3 years

Note 3:
1 January 20X5 – 31 December 20X8 = 4 years

Note 4:
1 January 20X1 – 1 January 20X9 = 8 years
20 years – 8 years = 12 remaining years on date of second revaluation

Solution 10.24

ABC LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X4 (EXTRACTS)

	20X4 C	20X3 C	20X2 C	20X1 C

2. Accounting policies

2.1 Property, plant and equipment

Plant is revalued annually to fair values and is thus carried at fair value less accumulated depreciation and impairment losses.

Depreciation is provided on all property, plant and equipment over the expected economic useful life to expected residual values using the following rates and methods:

Plant: 20% per annum, straight-line method.

3. Profit before tax

Profit before tax is stated after taking the following (income)/ expenses into account:

Depreciation on plant	44 000	36 000	45 000	40 000
Revaluation expense	0	12 000	0	0
Revaluation income	(8 000)	0	0	0

4. Property, plant and equipment (extracts)

Plant				
Net carrying amount: 1 January	72 000	135 000	160 000	0
Gross carrying amount:	108 000	180 000	200 000	0
Accumulated depreciation and impairment losses:	(36 000)	(45 000)	(40 000)	0
Additions	0	0	0	200 000
Depreciation	(44 000)	(36 000)	(45 000)	(40 000)
Revaluation surplus increase/ (decrease)	8 000	(15 000)	20 000	0
Revaluation income/ (expense)	8 000	(12 000)	0	0
Net carrying amount: 31 December	44 000	72 000	135 000	160 000
Gross carrying amount:	88 000	108 000	180 000	200 000
Accumulated depreciation and impairment losses:	(44 000)	(36 000)	(45 000)	(40 000)

The last revaluation was performed on 1/1/20X4 by an independent sworn appraiser to the fair value in use and the fair value adjustment was recorded on a *net* replacement value basis. Revaluations are performed annually.

Carrying amount had the cost model been used instead:	40 000	80 000	120 000	160 000

Solution 10.24 continued …

ABC LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 20X4 (EXTRACTS)

	20X4 C	20X3 C	20X2 C	20X1 C
5. Deferred taxation asset/ (liability)				
The deferred taxation balance comprises:				
Property, plant and equipment	(1 200)	2 400	(4 500)	0
	(1 200)	2 400	(4 500)	0
Reconciliation:				
Opening balance	2 400	(4 500)	0	0
Deferred tax adjustments:				
- recognised in profit or loss	(1 200)	2 400	1 500	0
- recognised in other comprehensive income	(2 400)	4 500	(6 000)	0
Closing balance	(1 200)	2 400	(4 500)	0
6. Taxation expense/ (income)				
Normal income tax				
- current	X	X	X	X
- deferred	1 200	(2 400)	(1 500)	0

7. Tax effects of components of other comprehensive income

Revaluation surplus / (devaluation)				
Gross	8 000	(15 000)	20 000	0
Tax	(2 400)	4 500	(6 000)	0
Net	5 600	(10 500)	14 000	0

ABC LTD
STATEMENT OF COMPREHENSIVE INCOME (EXTRACTS)
FOR THE YEAR ENDED 31 DECEMBER 20X4

	Notes	20X4 C	20X3 C	20X2 C	20X1 C
Profit before tax	3	X	X	X	X
Taxation	4	X	X	X	X
Profit for the period		200 000	200 000	200 000	200 000
Other comprehensive income (net of tax)	7				0
Revaluation surplus / (devaluation)		5 600	(10 500)	14 000	0
20X2: (160 – 180) x 70% 20X3: (135 – 120) x 70% 20X4: (80 – 88) x 70%					
Total comprehensive income		205 600	189 500	214 000	200 000

Solution 10.24 continued …

ABC LTD
STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 20X4 (EXTRACTS)

	Revaluation surplus	Retained earnings	Total
	C	C	C
Balance at 1 January 20X1	**0**	**X**	**X**
Total comprehensive income	0	200 000	0
Balance at 31 December 20X1	**0**	**X**	**X**
Total comprehensive income	14 000	200 000	214 000
Realised portion transferred to retained earnings (/ 4 RUL)*	(3 500)	3 500	0
Balance at 31 December 20X2	**10 500**	**X**	**X**
Total comprehensive income	(10 500)	200 000	189 500
Balance at 31 December 20X3	**0**	**X**	**X**
Total comprehensive income	5 600	200 000	205 600
Realised portion transferred to retained earnings (/ 2 RUL)	(2 800)	2 800	0
Balance at 31 December 20X4	**2 800**	**X**	**X**

**RUL = remaining useful life (in years)*

ABC LTD
STATEMENT OF FINANCIAL POSITION
AS AT 31 DECEMBER 20X4 (EXTRACTS)

	Note	20X4	20X3	20X2	20X1
		C	C	C	C
ASSETS					
Non-current assets					
Property, plant and equipment	4	44 000	72 000	135 000	160 000
Deferred taxation	5	0	2 400	0	0
EQUITY AND LIABILITIES					
Equity					
Revaluation surplus (from SOCIE)		2 800	0	10 500	0
Non-current liabilities					
Deferred taxation	5	1 200	0	4 500	0

Solution 10.24 continued …

WORKINGS

W1: Deferred tax calculation:

Plant	Carrying amount	Tax base	Temp diff	Deferred taxation	*Details*	Revaluation surplus
Balance: 1/1/20X1	**0**	**0**	**0**	**0**		
Purchase	200 000	200 000	0	0		
Depreciation	(40 000)	(40 000)	0	0		
(200 000/ 5 years)						
Balance: 31/12/20X1	**160 000**	**160 000**	**0**	**0**		
Revaluation surplus	20 000	0	(20 000)	(6 000)	*Cr DT*	(20 000)
(equity increase)					*Dr RS*	6 000
Fair value	180 000	160 000				(14 000)
Depreciation	(45 000)	(40 000)	5 000	1 500	*Dr DT*	3 500
(180 000/ 4 years)					*Cr TE*	
Balance: 31/12/20X2	**135 000**	**120 000**	**(15 000)**	**(4 500)**	***Liability***	**(10 500)**
Revaluation surplus	(15 000)	0	15 000	4 500	*Dr DT*	15 000
(equity decrease)					*Cr RS*	(4 500)
Historical carrying amount	120 000	120 000	0			0
Revaluation expense	(12 000)	0	12 000	2 400	*Dr DT*	
Fair value	108 000	120 000			*Cr TE*	
Depreciation	(36 000)	(40 000)	(4 000)			
(108 000/ 3 years)						
Balance: 31/12/20X3	**72 000**	**80 000**	**8 000**	**2 400**	***Asset***	**0**
Revaluation income	8 000	0	(8 000)	(2 400)	*Cr DT*	
					Dr TE	
Historical carrying amount	80 000	80 000				
Revaluation surplus	8 000	0	(8 000)	(2 400)	*Cr DT*	(8 000)
(equity increase)					*Dr RS*	2 400
Fair value	88 000	80 000				5 600
Depreciation	(44 000)	(40 000)	4 000	1 200	*Dr DT*	(2 800)
(88 000/ 2 years)					*Cr TE*	
Balance: 31/12/20X4	**44 000**	**40 000**	**(4 000)**	**(1 200)**	***Liability***	**2 800**

Please note: the revaluation surplus is not necessary to include in this deferred tax table. All calculations relating to the revaluation surplus have been included directly on the face of the SOCI and SOCIE.

Solution 10.25

W1. Carrying amount of plant

W1.1 Basic plant (excluding platform and inspection costs and replacement engine)

Raw materials	*400 000 + 200 000 / 125% x 100%*	560 000
Labour	*500 000 + 300 000 + 200 000 + 300 000 (co. contrib.)*	1 300 000
Provision for dismantling	*W2*	445 931
		2 141 592
Less Depreciation of basic plant	*(27 400 691 – 0) / 20 years x 7 / 12*	(67 256)
Less Impairment of engine	*Cost: 100 000 – AD: (100 000 – 0)/ 20 years x 7/12 – RV: 0 (scrapped)*	(97 083)
Carrying amount		26 504 421

W1.2 Engine replacement	*A separate part since the useful life now differs*	
Cost	*Given*	110 000
Less Depreciation of new engine	*No depreciation yet*	(0)
Carrying amount		110 000

W1.3 Specialised platform		
Cost	*Given*	750 000
Less Depreciation of platform	*(750 000 – 50 000) / 10 years x 7 / 12*	(40 833)
Carrying amount		709 167

W1.4 Major inspection		
Cost	*Given*	600 000
Less Depreciation of inspection	*(600 000 – 0) / 3 years x 7 / 12*	(116 667)
Carrying amount		483 333

Carrying amount of plant: 31/12/20X1	*2 141 592 + 110 000 + 709 167 + 483 333*	3 444 092

W2: Present value of future dismantling cost Use a financial calculator or the PV table below:

Year	Future Amount	Present value factor for 10%	Present values
1	3 000 000	0.909	2 727 273
2	3 000 000	0.826	2 479 339
3	3 000 000	0.751	2 253 944
4	3 000 000	0.683	2 049 040
5	3 000 000	0.621	1 862 764
6	3 000 000	0.564	1 693 422
7	3 000 000	0.513	1 539 474
8	3 000 000	0.467	1 399 522
9	3 000 000	0.424	1 272 293
10	3 000 000	0.386	1 156 630
11	3 000 000	0.350	1 051 482
12	3 000 000	0.319	955 892
13	3 000 000	0.290	868 993
14	3 000 000	0.263	789 994
15	3 000 000	0.239	718 176
16	3 000 000	0.218	652 887
17	3 000 000	0.198	593 534
18	3 000 000	0.180	539 576
19	3 000 000	0.164	490 524

20	3 000 000	0.149	445 931